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CENTRAL INTELLIGENCE AGENCY  
**INFORMATION REPORT**

COUNTRY China

SUBJECT Monthly Reports of the Shanghai Power Company (1948)

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## SOURCE DOCUMENTARY

Available on loan from CIA Library are the monthly reports of the  
Shanghai Power Company, for the year 1948. These reports contain  
information on the following subjects:

Revenues &amp; Expenses (Compared with 1947)

Electric Demand, Output, Sales &amp; Losses

Customers, Service Inspections

Employees

Operation

Charts

Peak Load  
Output - Monthly  
Employees

AppendixReports

Secretarial &amp; Accountancy - S.P.C. &amp; W.D.P.C. (Western District Power Co.)

Consumers' Monthly Report - S.P.C.

Consumers' Monthly Report - W.D.P.C.

Generation Report

Distribution Operation Division - S.P.C. &amp; W.D.P.C.

Larceny of Electricity

- end -

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SRANDEAL POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SRANDEAL  
FEDERAL INC., U.S.A.

MONTHLY REPORT

FOR

JANUARY 1948

ILLEGIB

25X1A

SHANGHAI POWER COMPANY  
AND  
WESTINGHOUSE DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

MONTHLY REPORT

FOR

JANUARY 1948

ILLEGIB

SHANGHAI POWER COMPANY



ECONOMY CAMPAIGN NOTICES

No. 1-11

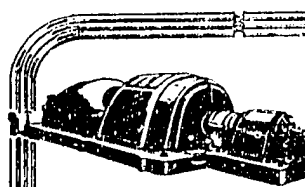
*Published in the following newspapers from  
January 17 to January 29, 1948, inclusive:*

CHINA DAILY TRIBUNE  
THE CHINA PRESS  
NORTH CHINA DAILY NEWS  
THE SHANGHAI EVENING POST & MERCURY



*With the Compliments  
of*  
CHINA COMMERCIAL ADVERTISING AGENCY

CPYRGHT



No. 1

**SHANGHAI POWER COMPANY  
WESTERN DISTRICT POWER COMPANY**

• *Announcement* •

SINCE 1940 regular advertising has been discontinued except for the publication of rate changes. This economy has been necessary because of inadequate earnings since 1937, and because the pre-war shortage of fuel and the post-war shortage of generating capacity forced restrictions upon power usage.

Despite the generous space and fair interpretations of the critical power shortage in Shanghai given by the press from time to time, there are some persons who are not clear as to precisely why they must economize in the use of electricity, or as to the purpose of the present restraints in the form of allotments and restrictive charges imposed upon them.

Because it no longer seems fair to impose the costs of publicity and explanations upon free space contributed by the press, it is proposed to publish a series of paid notices dealing with the power problem in Shanghai.

This is simply an announcement of the forthcoming series.

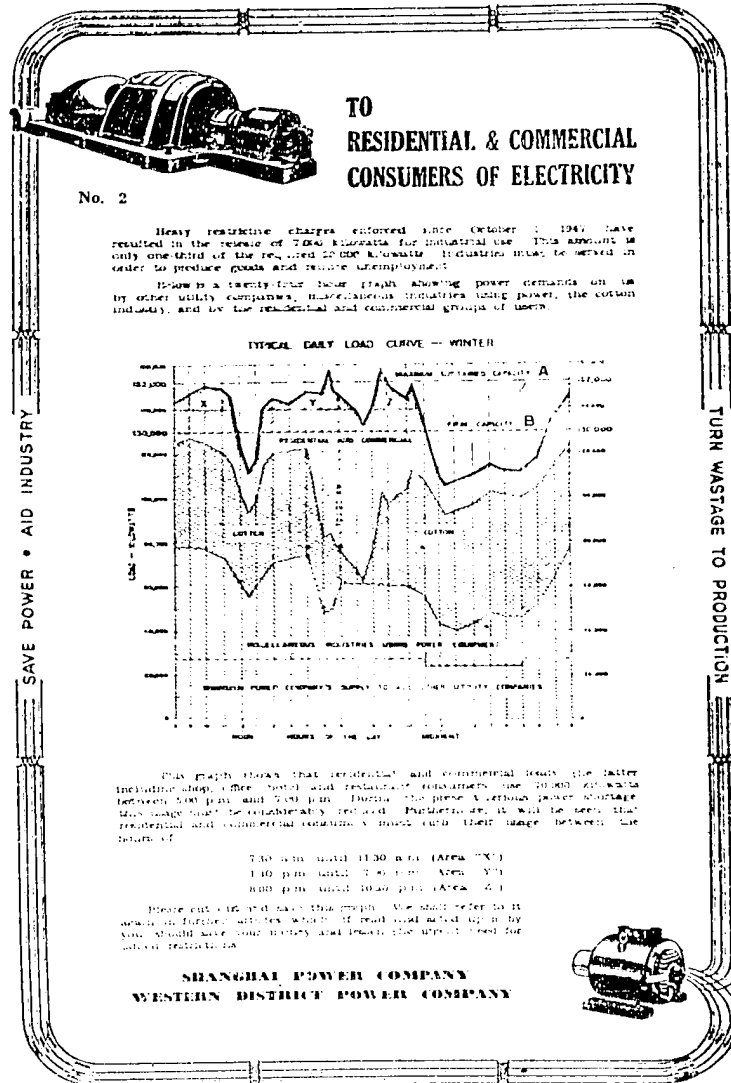
NOTICES UNDER THIS INTRODUCTION, SERIALLY NUMBERED, WILL APPEAR CURRENTLY AND SO FAR AS POSSIBLE IN THE SAME SPACE IN THIS NEWSPAPER.



SAVE POWER • AID INDUSTRY

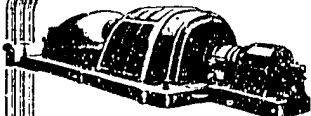
TURN WASTAGE TO PRODUCTION

CPYRGHT



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SAVE POWER • AID INDUSTRY



## LEARN HOW TO READ YOUR METER AND THEN READ IT REGULARLY

No. 1

A regular check of the number of units (kilowatt hours) being used during the month is an aid to economy, and yet very few consumers read their meters. The following instructions and illustrations will enable consumers to read meters correctly.

The meters in use by Shanghai Power Company and Western District Power Company are fitted, as a general rule, with registers which have three or four reading dials. There are two types of registers.

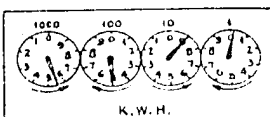
FIGURE 1

6 2 7 8

K.W.H.

READING 6278

FIGURE 2



1000 100 10 1

K.W.H.

1. Cyclometer Type which shows the reading in plain figures.

2. Pointer Type which gives the reading by means of hands on a number of dials.

More care is required in reading this type of register.

(a) Read from left to right as in the case of the cyclometer type.

(b) When a hand is between two numbers, put down the smaller except when it is between 9 and 0, in which case put down 0. When a hand is on a number put down the number less unless the hand on its right has passed through 0.

The above reading is 4950 not 5530.

The direction in which the hands rotate is shown by the small arrows.

### HOW MANY UNITS HAVE BEEN USED?

The number of units (kilowatt hours) that have been used between two readings is the difference between those readings.

Example: Reading today	1691
Reading same day last week	7941
Difference	900 K.W.H.

Consumption of electricity is 900 K.W.H. in 7 days, which is equal to:  
240 K.W.H. to one month.

On the face of some registers are printed multipliers usually shown in this way:


K.W.H. x 1000 K.W.H. x 100, or some other figure.

This means that the difference between two readings must be multiplied by this number to obtain the K.W.H. used.

In the above example a multiplier of 10 would mean that 90 x 10 = 900 K.W.H. had been used in one week.

**WE RECOMMEND THAT YOU READ YOUR  
METERS WEEKLY, SO THAT YOU CAN CHECK  
YOUR CONSUMPTION REGULARLY.**

SHANGHAI POWER COMPANY  
WESTERN DISTRICT POWER COMPANY

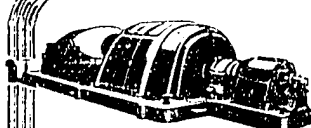


TURN WASTAGE TO PRODUCTION

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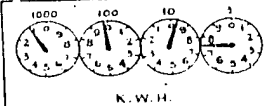
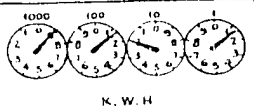
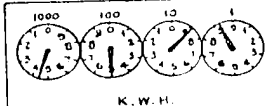
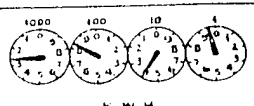
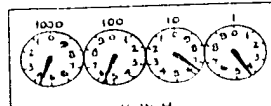
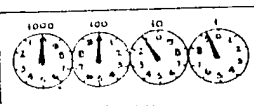
**LEARN HOW  
TO READ YOUR METER  
AND THEN  
READ IT REGULARLY**

No. 5

Refer to the instructions issued yesterday for reading  
POINTER DIALS.


When a hand is between two numbers put down the  
smaller, except when it is between 9 and 0, in which case  
put down 9. When a hand is on a number put down one  
number less, unless the hand on its right has passed  
through 0.

• EXAMPLES •

 K. W. H. READING = 0997 <del>NOT</del> 1997	 K. W. H. READING = 9121
 K. W. H. READING = 4489 <del>NOT</del> 4599	 K. W. H. READING = 2839 <del>NOT</del> 2849
 K. W. H. READING = 4564	 K. W. H. READING = 0009 <del>NOT</del> 0319

WE RECOMMEND THAT YOU READ YOUR  
METERS WEEKLY, SO THAT YOU CAN CHECK  
YOUR CONSUMPTION REGULARLY.

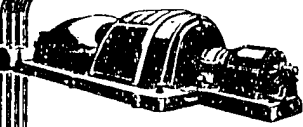
SHANGHAI POWER COMPANY  
WESTERN DISTRICT POWER COMPANY



SAVE POWER • AID INDUSTRY

TURN WASTAGE TO PRODUCTION

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**WANTED  
URGENTLY**

No. 6

**20,000 KILOWATTS OF  
ELECTRICAL POWER FOR SHANGHAI INDUSTRY**

This can be made available from SHANGHAI POWER COMPANY'S EXISTING GENERATORS.

All that is needed is for every residential and commercial consumer to reduce his total lighting load (total wattage) by 150 watts.

This result can be obtained either by taking lamps out of service, or by reducing the size (wattage) of the lamps in use.

Eight 40 watt lamps substituted for the same number of 60 watt lamps will save 160 watts.

Some consumers may not be able to save the full 150 watts. However, many can, and the majority can make even larger reductions.

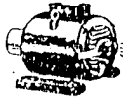
For example:

- (1) A standard radiator consumes as much power as ..... Fifty 60 watt lamps
- (2) Consumers who cook by electricity should realize that a large hot plate with the switch in the HIGH position consumes as much power as ..... Thirty-three 60 watt lamps

And that the smaller hot plate, with the switch in the LOW position, consumes as much power as ..... Five 60 watt lamps

**EVERY CONSUMER CAN MAKE SOME  
REDUCTION AND THUS SUPPORT THIS  
CAMPAIGN TO SAVE POWER FOR INDUSTRY.**

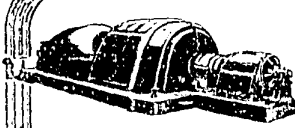
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No. 7

## ELECTRIC COOKING ECONOMY

Cooking by electricity is expensive at present day rates, and consumers are urged to use other and cheaper methods.

If, however, you are cooking by electricity, considerable economy can be effected by a more careful use of the hot plates and oven.

Most hot plates and ovens are fitted with control switches which permit of HIGH, MEDIUM and LOW heats.

Do not leave a switch in the HIGH position any longer than is necessary. Turn it to MEDIUM or LOW, and in most cases the degree of heat provided with the switch on these lower positions will be sufficient for your requirements.

Make more use of the grill if one is fitted. It is cheaper than using the oven indiscriminately.

**BOIL ALL THE WATER YOU REQUIRE BY SOME OTHER MEANS IF POSSIBLE.**


Keep the number of hot plates in use down to a minimum. Make full use of those already switched on.

Cooking at present rates costs a consumer approximately CN\$15,000 per kilowatt hour, and the following figures show what it costs per hour to run the hot plates, grill and oven at HIGH, LOW and MEDIUM heats. Study these figures and appreciate the considerable amount of saving you can effect.

	COST IN CENS PER HOUR TO OPERATE		
	High-Max Heat	Medium Heat	Low Heat
Large hot plate	\$30,000	\$15,000	\$7,500
Small hot plate	18,000	9,000	4,500
Grill	18,000	9,000	4,500
Oven	45,000	22,500	—

**INSTRUCT YOUR COOK IN THE ECONOMIC USE OF THE COOKER.**

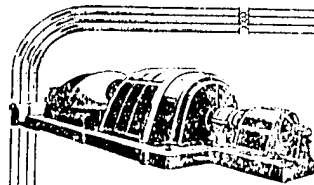
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WESTERN DISTRICT POWER COMPANY



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TURN WASTAGE TO PRODUCTION

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No. 8

### SUGGESTIONS FOR ECONOMY IN LIGHTING

Are you getting the most economical service from your electric lamps?

Check the following points and you may be able to reduce the number or put in smaller lamps. (This will save watts and reduce your bills.)

**Are the light bulbs clean?**

Dirty bulbs lose much of their lighting efficiency. Remove lamps periodically and wipe them over carefully with a damp cloth.

**Are all of the lights fitted with proper shades?**

A good shade reflects the light so as to make best use of it at table height where it is most needed.

**Are all shades clean?**

Clean these too with a damp cloth regularly. A dirty shade does not reflect light as it should do. A clean 40 watt lamp with a proper shade will give more light than an unshaded dirty 60 watt lamp.

Observance of these suggestions will save electricity and reduce your bills.

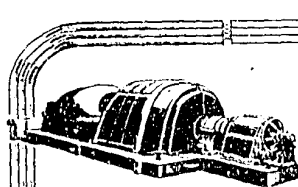
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WESTERN DISTRICT POWER COMPANY



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TURN WASTAGE TO PRODUCTION

CPYRGHT



No. 9

# IT IS NOW CHEAPER TO COOK BY COAL BRIQUETTES, COAL, CHARCOAL OR OIL THAN BY ELECTRICITY

Many consumers have had to continue by reverting to these fuels for cooking. Cooking by electricity is clean and easy, but at present day rates expensive.

One consumer who has recently changed from electricity to coal and charcoal for cooking, reports the following comparative costs per month:

For a Chinese family of eight persons, including servants	
COAL AND CHARCOAL	CN\$
5 picul of coal briquettes	1,000,000
3/4 picul of charcoal	350,000
Firewood	150,000
	1,450,000

## PREVIOUS MONTH

Using a 7.5 KW boiler for cooking and water boiling, the consumption was 700 kilowatt hours which (being within the allotment) would at the then prevailing rates have cost the consumer approximately CN\$10,000 per kilowatt hour of

7,000,000  
The consumer claims this to have effected a saving of CN\$5,550,000

Other consumers have submitted figures substantiating the fact that electric cooking today costs, on an average, three times more than cooking by briquettes, coal, charcoal, wood or oil.

Take advantage of cheaper methods of cooking and so release more power for industry.

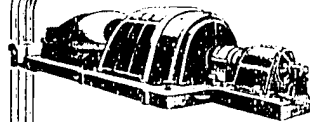
SHANGHAI POWER COMPANY  
WESTERN DISTRICT POWER COMPANY



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TURN WASTAGE TO PRODUCTION

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No. 10

## ELECTRIC POWER AND FOREIGN EXCHANGE

Waste of electricity wastes the Government's foreign exchange reserves.

Over 80% of our power is generated by imported fuel oil. That oil must be paid for in United States dollars.

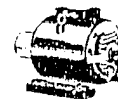
If the required exchange were not available from the Government, and fuel oil could therefore no longer be obtained, the fuel problem could not be relieved by substituting coal. The Government's Fuel Control Commission, at real sacrifice, regularly allots approximately 20,000 tons of coal per month to the Company. Under prevailing conditions no more is available, although this amounts to less than 20% of the Company's total fuel requirement.

Foreign exchange required to purchase fuel oil amounts to over US\$420,000 per month.

You will help yourselves, the Government and productive industries, if you economize in the use of electricity.

PLEASE HELP TO CONSERVE  
FOREIGN EXCHANGE

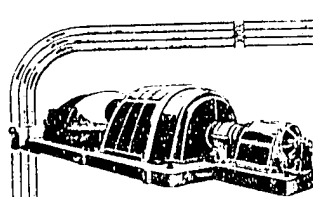
SHANGHAI POWER COMPANY  
WESTERN DISTRICT POWER COMPANY



SAVE POWER • AID INDUSTRY

TURN WASTAGE TO PRODUCTION

CPYRGHT



No. 11

## TO INDUSTRIAL USERS OF ELECTRIC POWER

An appeal has been made through the press to all residential and commercial consumers to economize in order to release further power for industry.

Industrial users have given the Shanghai Power Company ready cooperation by staggering working hours and reducing load at certain hours of the day, thereby enabling the Company to use the power available to the best possible advantage of Shanghai's industry as a whole. This cooperation is fully appreciated as a valuable contribution to a very urgent need.

There are other avenues toward further economy by industrial users that might be explored with advantage. Managers of industrial establishments are requested to check the following points:

Are all of your motors properly loaded?  
Are you running too many motors for the work you have to do?

(A lightly loaded motor makes very uneconomical use of power.)

Can you rearrange your load so as to reduce the number of motors required?

Your factory must be well lighted for satisfactory operation, but are you wasting light in any way?

### IN SHORT, ARE YOU MAKING BEST USE OF THE ELECTRIC ENERGY YOU TAKE?

The Shanghai Power Company offers expert advice in dealing with such problems free of charge.

SHANGHAI POWER COMPANY  
WESTERN DISTRICT POWER COMPANY



SAVE POWER • AID INDUSTRY

TURN WASTAGE TO PRODUCTION

SHANGHAI POWER COMPANYMONTHLY REPORTFORJANUARY 1948REPORT:INDEX

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Net Output or Purchase in MWH	2B	1
Units Sold & Accounted for in MWH	2C	1
Transmission & Distribution Losses in % of Net Output or Purchase	2D	1
Customers, Service Inspections	3	1
Customers	3A	1
Service Inspections	3B	2
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CHARTS:

Max. Hour Generation & Output	A
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## SHANGHAI POWER COMPANY

S U M M A R Y1. REVENUES & EXPENSES COMPARED WITH 1947 (C\$):

<u>Operating Revenues</u>	(C\$ Figures in thousands)	<u>Month of January</u>	
		<u>1948</u>	<u>1947</u>
S.P.C.		C\$ 473,084,090	C\$ 7,506,590
W.D.P.C.		" 116,809,724	" 1,824,876
Combined **		C\$ 492,443,225	C\$ 8,249,075
<u>Operating Expenses</u>			
S.P.C.		C\$ 329,656,481	C\$ 7,350,038
W.D.P.C.		" 111,649,591	" 1,421,546
Combined **		C\$ 343,860,474	C\$ 7,689,193
<u>Net from Operation</u>			
S.P.C.		C\$ 143,427,618	C\$ 156,552
W.D.P.C.		" 5,160,133	" 403,330
Combined **		C\$ 148,587,751	C\$ 559,882

\*\* Inter-company items eliminated.

2. ELECTRIC DEMAND, OUTPUT, SALES & LOSSES:2A Maximum hour in MWh

S.P.C. riverside max. hr. generation	157,797	134,096
W.D.P.C. max. hr. demand in MWh	34,222	30,780

2B Net output or purchase in MWh (x=1000)

S.P.C. net output	88,640	71,455
W.D.P.C. purchase from S.P.C.	20,027	14,726

2C Units sold & accounted for in MWh

S.P.C. (including sales to W.D.P.C.)	84,932 x	68,864
W.D.P.C.	19,219	13,909

2D Transmission & distribution losses in percent of net output

S.P.C. (W.D.P.C. considered as one customer)	4.2	3.6
W.D.P.C.	4.0	5.6

3. CUSTOMERS, SERVICE INSPECTIONS:3A Customers

S.P.C.	99,907	97,273
W.D.P.C.	22,285	20,734
Combined **	122,191	118,006

\*\* Inter-company items eliminated.

x including 920 MWh losses in synchronous plant for power factor improvement.

SHANGHAI POWER COMPANY

- 2 -

3b Service inspections		month of January	
(C\$ figures in thousands)		1948	1947
Number			
	S.P.C.	5,043	5,946
	N.D.P.C.	1,659	3,021
	total	6,742	8,967
irregularities			
	S.P.C.	739	1,024
	N.D.P.C.	218	568
	total	957	1,592
Cash recovered (C\$)			
	S.P.C.	114,481	3,765
	N.D.P.C.	24,724	1,615
	total	139,205	5,380
No. of recoveries			
	S.P.C.	27	26
	N.D.P.C.	8	7
	total	35	33

## 4. EMPLOYEES:

number			
	S.P.C.	3,081	3,043
	N.D.P.C.	125	127
total + (including staff on leave)		3,204 +	3,170

## 5. RIVERSIDE OPERATIONS:

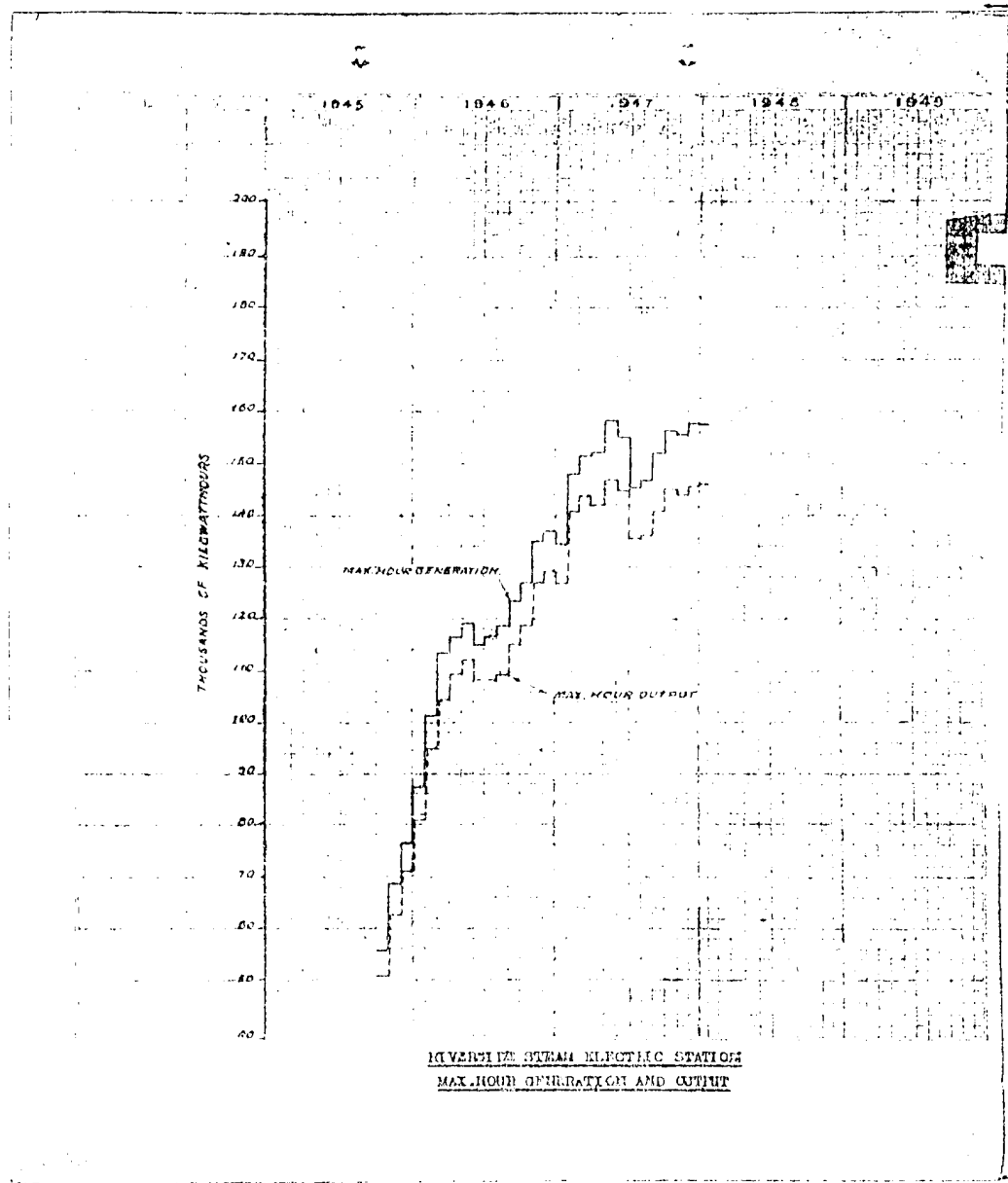
(1) generating capacity	1948	1947
Name plate rating (AW)	171,500	158,500
Name plate rating (KVA)	210,150	195,000
working rating - winter (KVA)	213,080	198,370
working rating - summer (KVA)	190,890	176,180

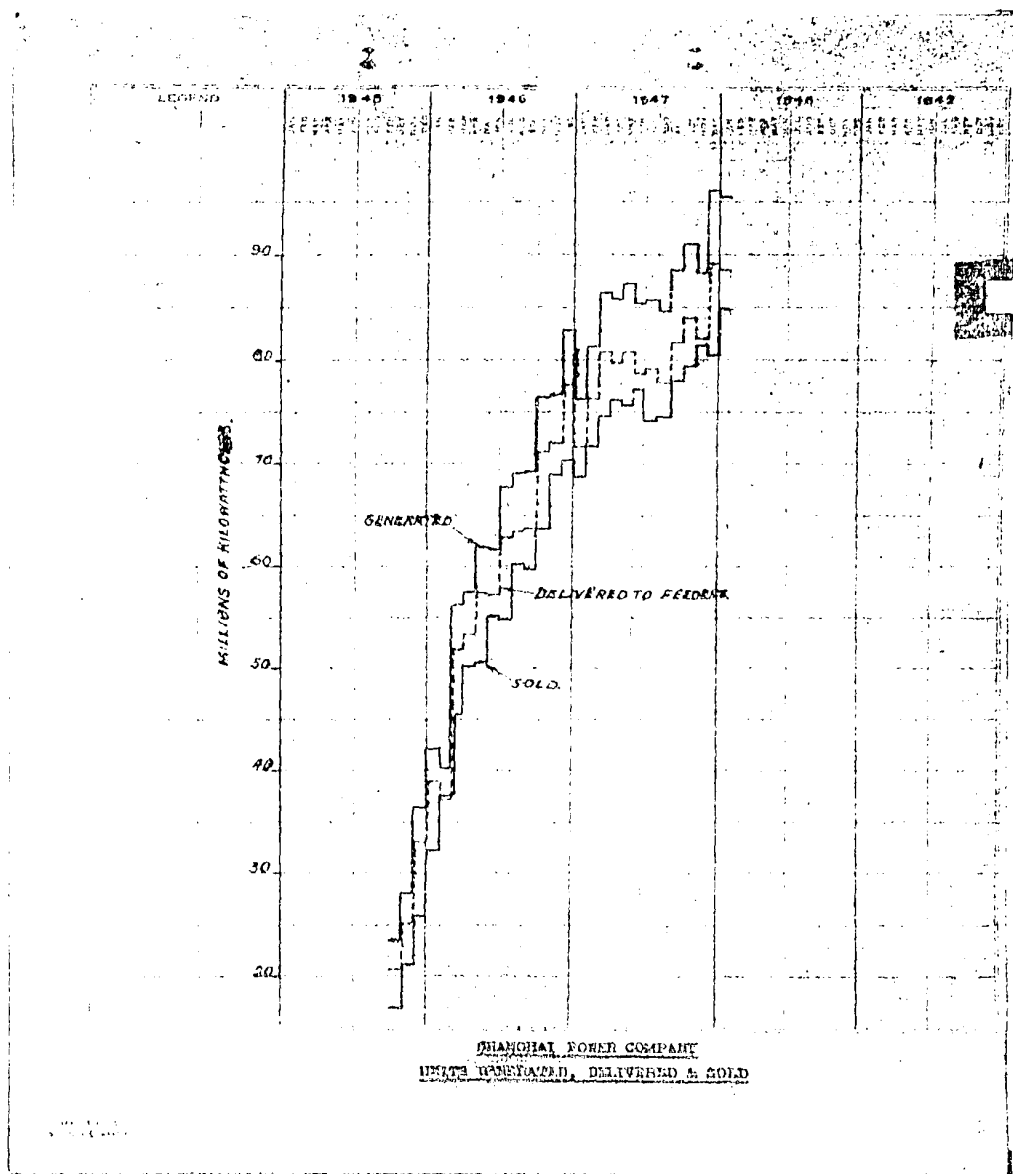
p Excludes 10-2, 10-6 &amp; 10-11.

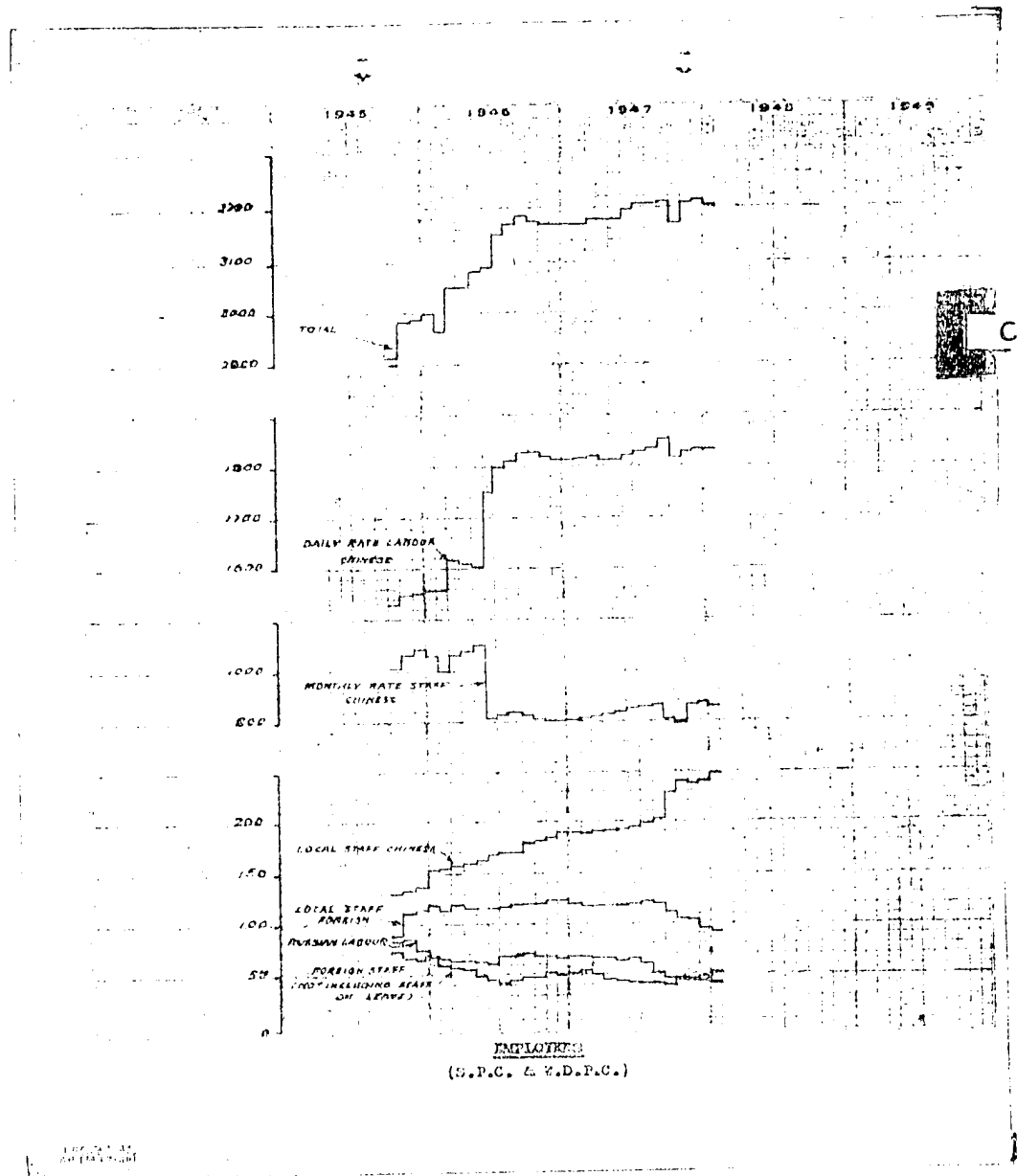
(2) instantaneous peak generation (AW)	160,119	139,961
(3) efficiency (KWH per AW Output)	18,872	20,516
(4) Load Factor (Based on Output & Max.Hr.Output)	81.55	76.03

## (5) Fuel in tons of 2240 lbs.

	1948		1947	
	Coal	Oil	Coal	Oil
In stock at end of December 1947.	21,280	2,516	19,282	2,014
Received during month	9,184	31,011	20,054	24,142
Used during month (including sundries)	17,496	31,117	21,005	24,395
In stock at end of January 1948.	13,037	2,410	18,331	1,761







SHANGHAI POWER COMPANY

## SECRETARY &amp; ACCOUNTANCY

JANUARY 1948

SHANGHAI POWER COMPANY AND WESTERN DISTRICT POWER COMPANY

Cash on Hand and in Banks - Shanghai

<u>Current Bank Accounts</u>	<u>S.F.C.</u> CH\$	<u>H.D.F.C.</u> CH\$
Secretary & Treasurer	-	193,094,409
Hongkong & Shanghai Banking Corporation		
General Fund Account	7,988,099,782	-
Fixed Deposit Account due 2.15.48	10,000,000,000	-
Chase Bank-Fixed Deposit Account due 2.28.48	10,000,000,000	-
National City Bank of New York		
General Fund Account	11,680,391	-
Demand Deposit Account	25,000,000,000	-
CH\$10,000,000,000 due 2.2.48		
CH\$15,000,000,000 " 2.12.48		
Banque Belge pour l'Extranger		
General Fund Account	1,122,600	-
Fixed Deposit Account due 2.10.48	10,000,000,000	-
The Bank of China	11,190,110	-
The Chekiang Industrial Bank, Ltd.		
General Fund Account	116,219,351,585	38,046,636,674
Fixed Deposit Account due 2.12.48	20,000,000,000	-
Comptadore Cash on Hand	9,431,039,927	1,398,472
<b>Total</b>	<b>208,672,984,395</b>	<b>38,241,129,555</b>

Remittances

During January 1948 the following remittances were obtained by us at the official open market rate of exchange.

Remittances to New York Office

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
Jan. 1-31	US\$57,101.90	For various materials purchased in New York through Ebasco International Corporation.

Remittances to London Agent

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
Jan. 1-31	£2,488-16-5	For purchase of various materials in London through Matheson & Co., Ltd.

The following statement shows the supervision fee payable to you with U.S. dollar equivalent at the open market rate of the Central Bank of China.

	<u>Thousand CH\$</u>	<u>Exchange Rate</u>	<u>US\$</u>
Balance of account at December 31, 1947	41,985,884	90,000	466,487.60
Add January Fee	2,420,000	121,000	20,000.00
	<u>44,405,884</u>		<u>486,487.60</u>
Balance at open market exchange rate of CH\$121,000 to US\$1	58,865,000		486,487.60
Difference in exchange	<u>14,461,116</u>		<u>-</u>

SHANGHAI POWER COMPANY

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The difference in exchange amounting to CN\$14,461,116,000 was charged to Miscellaneous Suspense - Exchange Adjustment and subsequently transferred to Exchange - Net.

#### Accounts Payable

Unpaid fuel bills as at January 31, 1948, were as follows:

<u>Coal</u>	
Unpaid bills for January	- CN\$ 4,592,400,000
<u>Import Duty on Fuel Oil</u>	
Estimated unpaid duty	- CN\$20,424,072,385

#### Accounts Receivable & Collections

The total amount due from consumers as at January 31, 1948, excluding municipal and CN\$103,132,365,000 intercompany sales due from Western District Power Company of Shanghai was CN\$592,408,089,000. The amount due from the Municipal Government for both companies was CN\$20,410,956,000.

During the month, a total of 105,310 bills were sent out and the total amount billed for both companies, excluding intercompany sales, was CN\$594,543,655,900. Our cash collections during the month amounted to a total of CN\$415,739,465,600.

#### Customers' Deposits

Deposits collected during the month for both companies amounted to CN\$45,521,000 and refunds to CN\$3,302,000. The balance of deposits held against service charges for both companies amounted to CN\$7,600,290,000 of which the amount of CN\$ 27,896,000 (nominal value) was in the form of securities segregated as follows:

	<u>S.P.C.</u> CN\$	<u>W.D.P.C.</u> CN\$
S.P.C. Debentures	12,620	-
Bank Guarantee	56,800	25,027,600
S.P.C. #6 Silver Preferred	2,050,720	572,600
Shanghai Telephone Co. Shares	2,100	-
S.P.C. First Mortgage Debentures, 5 1/2%		
Dollar Series, due 1973	131,300	42,000
	<u>2,253,540</u>	<u>25,642,200</u>

#### Payroll

Our payroll for the month with high cost of living index 95,200 times basic (scaled down in accordance with Municipal Government formula) totalled CN\$50,899,339,000.

#### Rate Revision

Due to increased cost of operations, the Government approved a further revision of our rates and brought our rates for ordinary consumers up to CN\$6,900 per KWH effective from January 6, 1948. The Consumers' Engineering Dept. monthly report will give further details on this matter.

SHANGHAI POWER COMPANY

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Contingency Reserve

During the month, a total of CN\$66,970,845,000 was set aside as Contingency Reserve and the amount charged off from Suspense to current month operating expenses was CN\$16,970,845,000 based upon the following calculations:

Balance on books before adjustment	CN\$48,025,499,000
Balance adjusted to Jan. 31 exchange rate of CN\$121,000	<u>64,996,344,000</u>
Balance charged to Operating Expenses in January	<u>CN\$16,970,845,000</u>

Employee Pension & Retirement Reserve

A total of CN\$18,366,000,000 was set aside as provision for this reserve in the current month based upon the following calculations and charged to operating expenses.

Total estimated potential liability for Pensions	
US\$1,500,000 at 121,000	CN\$181,500,000,000
Total estimated potential liability at December 31, 1947	
in respect of Retirement Gratuities for Local Appointees	
& Regular staff = basic CN\$3,007,394 at Jan. H.C.L. 95,200	<u>286,304,000,000</u>
	CN\$467,804,000,000
Less accrued to December 31, 1947	<u>27,019,000,000</u>
Amount to be accrued over two years from January 1, 1948,	
to December 31, 1949	<u>CN\$440,785,000,000</u>
January proportion = 1/24 of total	<u>CN\$ 18,366,000,000</u>

Dividend Equalization Reserve & General Reserve

During the month we set aside CN\$5,042,000,000 for Dividend Equalization Reserve and CN\$2,521,000,000 for General Reserve. The increases over the respective last month figures were due to the revision of the official open market rate of exchange from CN\$190,000 on December 31, 1947, to CN\$121,000 on January 31, 1948.

Material Replacement Reserve

A total of CN\$10,095,431,000 was charged to this reserve based upon the comparison between issues at original and replacement costs.

Casualty and Insurance Reserve

The current month provision for this reserve was CN\$605,000,000 based on US\$5,000 at the exchange rate of CN\$121,000 and charged to operating expenses.

Chinese Government Profits Tax

A total of CN\$36,864,000,000 was accrued in the current month for this tax, representing 25% of our estimated taxable income of CN\$147,456,108,000.

*A. Kendal Ward*

February 26, 1948

A. Kendal Ward  
Secretary & Treasurer



SHANGHAI POWER COMPANY

MARCH 3, 1949

REF 20 P. 2  
WP 5000 (11.47)

## CONSUMERS' MONTHLY REPORT FOR JANUARY

## SHANGHAI POWER COMPANY

## JANUARY STATISTICS

## Analysis of Sales in Kwh.

	This Year	Last Year	Increase	Increase %
Residential Lighting)	2,778,708	2,754,014	-24,696	-0.9
Commercial Lighting)				
Residential Heating & Cooking)	1,400,814	1,401,540	-726	-0.05
Commercial Heating & Cooking)				
Bulk Supply Industrial	11,412,711	11,470,348	-57,637	-0.5
Bulk Supply Commercial	1,000,417	1,317,347	-316,930	-24.1
Small Power (Incl. S.W. Users)	5,811,814	5,600,116	211,698	3.8
Public Utility:				
Shanghai Tram	1,104,877	1,087,777	17,100	1.6
French Trams	207,000	1,100,000	-893,000	-81.2
Shanghai Waterworks	1,000,000	1,000,000	0	0.0
Chapel Co.	10,011,554	1,300,011	8,711,543	669.3
Intercompany - S.W. Co.	1,000,000	10,000,000	-9,000,000	-90.0
Private Street Lighting	100,000	100,000	0	0.0
Municipal Street Lighting	100,000	100,000	0	0.0
Municipal Others	4,000,000	4,000,000	0	0.0
Total	31,611,111	31,611,111	0	0.0
Total Units (12 months ending January, 1949)	31,611,111	31,611,111	0	0.0

## Analysis of Power Industrial Sales in Kwh.

	This Month	Last Month	Last Year	Increase over Last Year
China Cotton Mills	1,111,111	1,111,111	1,111,111	0.0
Other Cotton Mills	1,111,111	1,111,111	1,111,111	0.0
Total Cotton Mills	2,222,222	2,222,222	2,222,222	0.0
Flour Mills	1,111,111	1,111,111	1,111,111	0.0
Rubber Products	1,111,111	1,111,111	1,111,111	0.0
Paper Mills	1,111,111	1,111,111	1,111,111	0.0
Lumber Mills	1,111,111	1,111,111	1,111,111	0.0
Egg Produce	1,111,111	1,111,111	1,111,111	0.0
Oil Mills	1,111,111	1,111,111	1,111,111	0.0
Ice & Cold Storage Factories	1,111,111	1,111,111	1,111,111	0.0
Tobacco Factories	1,111,111	1,111,111	1,111,111	0.0
Silk Mills	1,111,111	1,111,111	1,111,111	0.0
Miscellaneous Textiles	1,111,111	1,111,111	1,111,111	0.0
Metal Working	1,111,111	1,111,111	1,111,111	0.0
Woolen Mills	1,111,111	1,111,111	1,111,111	0.0
Miscellaneous Other	1,111,111	1,111,111	1,111,111	0.0
Total	11,111,111	11,111,111	11,111,111	0.0

SHANGHAI POWER COMPANY

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SHE 200.0  
SEP 1950 (177.23)CONNECTIONS

		<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during Month</u>
No. of Customers		99,907	99,700	97,273	207
" Refrigerators	g	8,594	8,585	8,414	9
" Cookers	(Hired) x	2,954	2,954	2,973	-
" Radiators	( " ) x	1,571	1,761	2,153	-190
" Water Heaters	( " ) x	77	78	68	-1
" Misc. Appliances	( " ) x	168	167	167	1
H.P. of motors	( " ) x	14,278	14,184	14,116	94

g Includes Refrigerators installed in Western District Power Company Area.  
x These figures include Appliances hired by Western District Power Co. of Shanghai.

CONNECTED LOAD

		103,747	102,505	100,877	242
K.W. Lighting		103,747	102,505	100,877	242
" Heating: Comprising		(31,304)	(31,643)	(31,919)	(-339)
" Cookers		18,305	18,299	18,244	6
" Radiators		9,285	9,636	10,366	-351
" Water Heaters		154	152	123	2
" Miscellaneous		3,560	3,556	3,186	4
" Motors		235,817	232,270	228,995	3,547
" Industrial Heating		4,810	4,625	4,199	-15
" W.D.P.C.		54,600	54,600	54,600	-
" Total		430,078	426,643	420,590	3,435

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	58
Total Customers Disconnected	55
Gain	3
Total New Customers Connected	204
Total Increase During Month	207

SHANGHAI POWER COMPANY

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Ref No 2.8  
SPP Form 111-251GENERAL COMMENTS:

Rates - The Automatic Formula, described in last month's Report, was used in the computing of the January rates. As already reported, the Formula in its completed form is:

$$\text{Average Rate} = 0.37x_1 + 0.43x_2 + 0.044\left(\frac{60}{100}y + \frac{40}{100}w\right)$$

The values for the variables,  $x_1$ ,  $x_2$ ,  $y$  and  $w$  which have been used for this rate computation are:

$x_1$  = Coal price = C\$2,150,000 per Metric Ton  
 $x_2$  = Oil price = C\$2,931,707 " " "  
 $y$  = Cost of Living Index = 68,200  
 $w$  = Retail Index = 122,750

Inserting these values in the Formula, we have:

$$\text{Average Rate} = \text{C\$6.017 per KWH}$$

It was agreed that the rate chargeable to the various classes of service would be set in accordance with the following ratios:

A = Average Rate  
 P = Power Rate (and Commercial Bulk Supply)  
 1.10 P = Lighting, Heating & Cooking Rate  
 0.60 P = Public Street Lighting Rate  
 1.10 P = Private Street Lighting Rate  
 0.80 P = Tramways & Waterworks Rate  
 0.60 P = Chapel & French Companies' Rate (within Allotment)  
 0.90 P = " " " " " (usage in excess of Allotment)

The following table shows the rates approved to go into effect on January 6th and, for reference, the previous rates are given which had been in force since November 22, 1947:

	Effective Nov. 22, 1947 C\$/KWH	Effective Jan. 6, 1948 C\$/KWH
Lighting, Heating & Cooking	4,650	6,900
Commercial Bulk Supply	4,650	6,275
Power - up to 50,000 KWH/Month	4,650	6,275 x
" - excess over 50,000 KWH/Month	4,710	
Public Street Lighting & Traffic Signals	2,340	3,765
Private Street Lighting	4,605	6,900
Shanghai Waterworks	2,815	5,020
Shanghai Tramways	1,905	5,020
Chapel Co. - usage up to 3,360,000 KWH/Month	2,330	3,765
" - excess usage	4,195	5,640
French Co. - usage up to 850,000 KWH/Month	2,330	3,765
" - excess usage	4,195	5,640

x One Rate only

SHANGHAI POWER COMPANY

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REF. 207.2  
OF 2000 111.471

ECONOMY CAMPAIGN:

With a view to bringing to the notice of the general public the serious problem presented by the prevailing shortage of generating capacity in the city, it was decided to run a press and radio campaign in an endeavour to encourage non-industrial consumers to exert economy in the use of electric energy.

Press Campaign

A series of eleven notices, including a preliminary announcement, was prepared and on January 17th the announcement was published and followed on consecutive days by the ten notices until the series was completed. These appeared in 10 local newspapers, 6 in the Chinese language and 4 in English. A copy of the complete series is enclosed.

Radio Program

This program was initiated on January 16th by an introductory announcement being read over the air by all the selected stations. This was followed on the 17th and continued until the end of the month by suitably worded spot announcements of approximately 1-minute duration each at regular intervals between 4:30 p.m. and 10:00 p.m. The following are three examples of announcements used:

"It will soon be dark and the demand for electric power will increase as lighting is switched on. Do not switch on more lights than you actually need, nor leave burning any lamps that are not required. Please cooperate in saving electricity."

"This is the hour of peak demand for electrical power. Supply to certain factories in Shanghai is in danger of being disconnected, in order to prevent damage to the generators by overloading. You can all help by using as little electricity as possible right now. Industry in Shanghai suffers every time supply is interrupted."

"Don't use your electric cooker for boiling all the water you need for baths, laundry, etc. This can be done much cheaper with auxiliary stoves burning coal, coke, briquettes, charcoal or oil. These stoves are relatively cheap to install. Train your servants to do as much cooking as possible in this way."

In order to ensure proper delivery, the announcements were recorded on master gramophone records by experienced artists and from these master records duplicates were made for use by the various broadcasting stations. This program was presented by nine stations, eight of which broadcast in the Chinese language and one in English.

RESTRICTIVE MEASURES

Numerous letters are still being received from consumers requesting revision of allotment or preferential treatment with regard to payment of restrictive charges.

Each case is analyzed and if the request for allotment increase is justifiable and in line with the various Regulations set up by the Committee, adjustment is made to permit of reasonable operation without undue hardship.

SHANGHAI POWER COMPANY

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SEP 29 1947  
SHANGHAI 111-671

Undoubtedly the scheme has attained a certain limited degree of success, but it is felt that it has created a considerable amount of ill feeling among our consumers. Efforts have been made to give fair treatment to all those consumers who have brought their individual problems to our notice, but many others who have endeavored to adhere strictly without complaint to the plan have suffered hardship. Taking all factors into consideration, the scheme which was given us to enforce has little in its favour and the amount of load released hardly justifies the means employed to attain this end.

COMMENTS: TOTAL KILOWATT-HOUR SALES:

The meter reading months were as follows:

	<u>January</u>	<u>December</u>	<u>Difference</u>
Schedule Rate Consumers	32.49	27.98	+ 16.1%
Bulk Supply Consumers	31.00	30.30	+ 2.3%
Municipal Consumers	32.00	29.00	+ 10.3%

Total Kilowatt-Hour Sales for January were 83,631,735 KWH compared with 79,000,000 KWH in December, an increase of 4,600,000 KWH or 5.5%, corresponding closely to the increase of the weighted reading month. January 1947 sales were only 67,800,000 KWH, but this total was low because the Chinese New Year holidays occurred during the reading period. A decrease may be expected next month as the holidays this year were in February.

Residential & Commercial Lighting Sales amounted to 9,378,708 KWH compared with 7,636,000 KWH the previous month. This is an increase of 1,740,000 KWH or 24% - 8% more than the increase of the reading month.

Previously recorded usage and reading months were as follows:

December 1946	7,500,000 KWH in 28.8 days
January 1947	9,750,000 " " 32.13 "

Average daily sales therefore compare as follows:

	<u>Daily Sales - KWH</u>	
	<u>1946/7</u>	<u>1947/8</u>
December	260,000	374,000
January	301,000	300,000

Residential & Commercial Heating Sales increased from 1,000,000 KWH in December to 1,268,000 KWH in the current month. With due regard to the longer reading month, the increase is not much less than normally seasonal although no doubt a certain saving resulted from the Restrictive Measures.

Industrial Bulk Supply took 11,215,000 KWH compared with 30,600,000 KWH last month, an increase of 515,000 KWH or 2%. Most of the increase was due to higher Cotton Mill usage.

Commercial Bulk Supply consumption increased from 1,186,000 KWH the previous month to 1,230,000 KWH in the current month, in line with the increased reading month.

Small Power - Sales registered 5,810,000 KWH compared with only 4,830,000 KWH last month. This is an increase of 930,000 KWH or 19% - 3% more than accounted for by the longer reading month.

SHANGHAI POWER COMPANY

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REF. 20 P. 0  
SHANGHAI 1111.271

Shanghai Trams took 1,185,000 KWH, i.e., no change from the preceding month, while sales to

French Trams dropped slightly to 857,000 KWH.

Shanghai Waterworks sales totalled 1,380,000 KWH, 3% less than the December total of 1,380,000 KWH.

Chapei Co. - Sales declined slightly to 10,600,000 KWH, while

Intercompany Sales increased by 6% to 10,000,000 KWH in line with the longer reading month in the Western District.

Public & Private Street Lighting Sales showed no change, but

Municipal Others took 1% more than last month due to seasonally increased lighting and heating usage.

Other Industrial Sales

Cotton Mills - Sales increased 1% to 11,700,000 KWH.

The demand for cotton yarn and piece goods continues to be good and mills readily absorb all available energy.

According to a statement by "The Cotton Textile Adjustment Committee", the requirements of cotton yarn in Greater Shanghai is 108,000 bales (of 420 lbs.) corresponding to about 24,000 tons of raw cotton per month. The cotton will be distributed to the spinning mills in exchange for yarn which in turn will be rationed to the weaving mills in exchange for piece goods. Operators fear that the collection of the finished product will be more efficiently handled than the distribution of the raw material and are therefore reluctant to use up their stocks until replacements are received. Several mills have voiced their intention to reduce operations by cutting out one or more night shifts. Probably these threats are mainly intended to back negotiations regarding operating costs and a compromise will be struck which will enable the present level to be maintained.

Flour Mills took 1,009,000 KWH compared with 954,000 KWH the preceding month, an increase of 6% this year. A further moderate increase may be expected as grain shipments from the United States are received as part of the Relief Aid to China.

Rubber Products - Sales remained practically unchanged at 1,174,000 KWH. A considerable percentage of the products of this industry was previously exported and raw rubber purchased from the proceeds. Lately, the rubber quotas have been reduced and with the wide margin between official and open market exchange rates, export has become less profitable, so operators are depending to an increasing extent on the domestic demand. Shipments to outports have been disrupted due to the civil war and the exceptionally dry weather this winter has also affected sales, and retailers are generally overstocked. Most mills are now producing summer footwear for stock. The tyre business, which is less influenced by seasonal variations, is fair. A moderate decline of sales from the industry in general is feared unless cold and rainy weather should increase demand.

Sales to Paper Mills increased by 6% to 1,185,000 KWH. Since imports were restricted a year ago, Paper Mill usage has shown a steady increase as shown by the table below:

SHANGHAI POWER COMPANY

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REF. 123.0  
LSP 200 200.072S.P.C. & S.D.P.C. COMBINEDPAPER MILL USAGE FOR 12 MONTHS ENDING

January 1947	11,000,000 KWH
February "	11,390,000 "
March "	11,760,000 "
April "	12,170,000 "
May "	12,700,000 "
June "	13,400,000 "
July "	14,000,000 "
August "	14,370,000 "
Sept. "	14,930,000 "
Oct. "	15,790,000 "
Nov. "	16,760,000 "
Dec. "	17,660,000 "

At present very little paper is imported except newspaper which is not manufactured locally. With stock of imported printing and writing paper dwindling, prospects for this group are good and increased usage may be expected.

Lumber Mills took 31.9% more than last month and reached a total usage of 52,220 KWH. Sales to this group have also increased steadily during the last twelve months and immediate prospects are good.

Sugar Produce continued idle.

Oil Mills - Sales to this group were 17,550 KWH or 16.5% less than last month.

Ice and Cold Storage Factories - Usage was seasonally down by 38.7% to 337,611 KWH.

Tobacco Factories - The consumption of this industry showed a moderate increase. The total was 282,770 KWH compared with 267,190 KWH the previous month. Both months were post-war highs and indications are that demand will continue good.

Large stocks of imported cigarettes are still available and are on sale everywhere, but restricted imports have forced the prices up so that local producers are able to undersell them and still operate at considerable profit.

Silk Mills - Sales to this group increased by 46.1% to 80,355 KWH but this was almost entirely due to the transfer to Bulk Supply from Small Power of 3 new consumers: Heng Foong Silk Weaving Factory, Kei Wen Silk Manufacturing Co. and the Poo Yih Silk Weaving Factory with a total usage of 22,000 KWH. The old consumers in the group barely maintained operations and activities are not expected to increase.

Local hosiery manufacturers have complained of the competition with imported nylon goods and requested the authorities that the sale of these be prohibited. The results of this action are not yet known.

Miscellaneous Textiles - Sales totalled 2,650,000 KWH, a 3.6% decrease from December. Dyeing and Weaving Mills generally maintained activities, while Shirt and Hosiery Manufacturers showed a reduction.

Metal Working Sales were 1,315,000 KWH, showing no change from last month.

SHANGHAI POWER COMPANY

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REF. 207.0  
SEP 2000 111-001

Most mills barely maintained activities and although the Chinese Aluminium Rolling Mills reduced operations, this was counteracted by the inclusion in returns of two mills formerly on Small Power: The China Rolling Steel Works and the Kuo King Steel & Iron Works with a combined usage of 42,000 KWH.

Woolen Mills took 394,010 KWH, the same as last month. A seasonal decline may be expected during the next few months.

Miscellaneous Other Sales increased by 0.4% to 766,000 KWH. The tendency of Chemical Plants, Breweries and Aerated Water Companies was weak; Coal Briquettes, on the other hand, increased their activities, partly due to the cold season but also due to the high price of electric energy which encourages cooking and heating by other fuels.

#### POWER SECTION

In last month's Report reference was made to a resolution passed by the Power Supply Regulating Committee authorizing the acceptance of applications for power service for daytime operation, provided that spare distribution was available and the load applied for did not exceed 25 H.P.

Details of load applied for were first submitted to Distribution Department Engineering to investigate the possibility of connection without overloading the low voltage distribution networks in the areas concerned.

During the month 104 applications, aggregating 1,003 H.P., were approved for connection in S.P.C. and W.D.P.C. franchise areas. However, owing to a reduction in the coal allotment for Riverside Power Station, and consequently the possibility of increased load reduction being necessary, it was deemed advisable to delay accepting these applications until coal supplies returned to normal. Applications for power service for night operation only are still being accepted.

In the course of the month, the Distribution Department Engineering continued to investigate the possibility of extending the operating hours of "night operation only" consumers. This was referred to in our Report for December. Consequently, by the end of January 213 consumers - total connected load 2,655 H.P. - had been advised in writing regarding the extension of operation to the daytime period.

The following applications for power service were accepted during the month:

New load: 14 Applications totalling 545 H.P.

The above load includes 3 H.P. for a water pump and temporary loads of 20 and 38 H.P. for building construction. The remainder of the applications, for night operation only, include new or additional loads of 280, 122 and 50 H.P. for rubber factories and loads of from 2 - 20 H.P. covering the following industries: food, tobacco, metals, printing and electrical repairs.

In order to investigate the practicability of paralleling the C.T.I.I. Mills' generators with S.P.C. system, the units at C.T.I.I. Nos. 6, 17 and 19 Mills were in turn run in parallel with our system for a number of hours. The experiment proved successful, but so far no agreement has been reached regarding the conditions governing the operation of these generators to increase the power output in the Shanghai area during the critical evening peak period. As explained in our December Report, the power imported to S.P.C. system would permit an equivalent increase in export to the Nantao Power Co. to improve supply facilities in that area.



SHANGHAI POWER COMPANY

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REF. 20 P. 2  
1000 0000 (10.0.00)

With the progressive lengthening of the daylight period, it was possible towards the end of the month to increase the operating hours of the cotton mills by reverting to the normal working schedule. For comparison the temporary and normal schedules are shown below:

Mills	DAILY STOPPING PERIOD	
	Normal Schedule	Temporary Schedule
2 Groups	4:30 p.m. - 7:30 p.m.	4:00 p.m. - 7:30 p.m.
2 "	5:30 p.m. - 8:30 p.m.	5:00 p.m. - 9:00 p.m.
2 "	7:00 p.m. - 10:00 p.m.	7:00 p.m. - 10:00 p.m.

The estimated loss of sales potentiality during January, due to the operation of the temporary working schedule, was approximately 250,000 KWH.

Load reduction affecting Chapei, Nantao and Pootung Power Companies is now applied as follows:

When enforced reduction on S.P.C. system is	Load reduction applied to Chapei, Nantao & Pootung Co's is
10,000 KW or less	Nil
In excess of 10,000 KW	3,000 KW

Previously, 1/6 of the total load reduction required was applied to these Utility Companies by interrupting supply, on a rotating schedule, to three of the seven feeders supplying these Companies. The application of load reduction was necessarily restricted to three feeders, as the remainder supply essential services. Consequently, interruption to supply only affected certain areas, but with the new scheme in operation the Chapei, Nantao and Pootung Companies can apply enforced load reduction on a more equitable basis.

The estimated loss of sales potentiality during the month due to load reduction was as follows:

Cotton Mills	3,970,000 KWH
Chapei & French Power Co's	231,000 "
Miscellaneous Industries	630,000 "
	4,831,000 KWH

To the above total should be added the estimated loss of 250,000 KWH due to the temporary curtailment of operating time for cotton mills, making the total for the month 5,081,000 KWH, which compares favourably with last month's total of 6,855,000 KWH. Voluntary load reduction, as applied to cotton mills, is still calculated as lost sales.

When estimating the total monthly loss of sales potentiality, it has been customary to deduct 1,830,000 KWH being the estimated gain due to the introduction of the Sunday working schedule for cotton mills in October 1946. As the present operating schedule is definitely established and likely to remain in force for some considerable time, it has been decided to discontinue making any allowance for the gain in sales previously referred to. In future, therefore, the estimated loss will be that due entirely to load reduction applied during the month.

Load conditions at Riverside improved considerably during the month when compared with December. This is illustrated in the following load reduction statistics for the two months:

SHANGHAI POWER COMPANY

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REF 22-2  
SEP 1950 (11-57)Estimated loss due to enforced load  
reduction applied to Cotton Mills

December	3,065,000 KWH
January	1,529,000 KWH

At the beginning of the month the overhaul of one boiler in "B" Station appreciably reduced the available steam generating capacity. When the coal allotment to Riverside was reduced, it was decided to economize by shutting down boilers normally banked, but brought on the line to carry over the sharp evening peak demands. The situation was further aggravated for about three days due to the delivery of a quantity of low grade fuel oil.

During January there were a number of cold, overcast days, with a resultant sharp increase in demand due mainly to heating load. Throughout the month the average potential demand was approximately 135,000 KW in the forenoon and 160,000 KW in the afternoon, while the maximum sustained demand that Riverside could negotiate varied from approximately 142,000 KW to 152,000 KW, depending on availability of generating plant. The highest instantaneous peak demand recorded was 160,100 KW.

No new connections to bulk supply consumers were made during the month, but the following load prospects were recorded:

Name: East China Steel Rolling Mills, Ltd.  
Address: Hochien Road.  
Load: 250 H.P.  
Estimated Maximum Demand: 130 KW.  
Estimated Annual Revenue: CN\$1,280,000,000.-

This new steel rolling mill is expected to be ready to start operating about April of this year.

Until additional generating plant is available at Riverside, consumer will be restricted to night operation only and supply will be given at low voltage.

Name: Wu-Kiang Rolling Mill  
Address: 1090 Tongshan Road.  
Load: 225 H.P.  
Estimated Maximum Demand: 120 KW  
Estimated Annual Revenue: CN\$1,170,000,000.-

Supply to this new steel rolling mill will be given temporarily at low voltage from the adjacent network for night operation only.

There is a possibility that the plant will be extended at a later date, creating an estimated increase in demand of 100 KW, and should this extension materialize the supply would be given at 6.6 KV, when consumer would be required to purchase suitable 6.6 KV equipment.

Name: National Insecticides & Sprayer Experimental Plant.  
Address: 802 Yulin Road.  
Load: 600 H.P.  
Estimated Maximum Demand: 300 KW  
Estimated Annual Revenue: CN\$2,560,000,000.-

This new experimental plant is under the control of the Ministry of Agriculture & Forestry and the installation of machinery obtained from UNRRA is already in hand.

SHANGHAI POWER COMPANY

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REF. 22 P. 2  
100-1000-110-107

Supply will be given at 6.6 kV and consumer has been advised regarding the purchase of suitable equipment.

The consumer has applied to the Bureau of Public Utilities for permission to operate during daytime, but so far no decision has been made.

All revenues mentioned in this report are based on present power rates of CN\$6,275.- per kWh.

#### Lower Installation Inspections:

Inspections made during January were as follows:

<u>No. of Inspections</u> <u>during January</u>	<u>Unauthorized</u> <u>Additions</u>
229	32

#### HIGHER PLANT INSTALLATION & MAINTENANCE SECTION

##### Workshop output:

Cookers overhauled & tested	21 pieces
Motors repaired " "	13 "
Oil Circuit Breakers - Starters repaired	14 "
Water Heaters repaired	5 "
Hot Plates fabricated	229 "
Service Calls attended	876 "
Miscellaneous - Interdepartmental jobs	290 man-days

##### Hired Motors:

Connections or disconnections - Oil  
Seven breakdowns occurred. In each case the motor had to be changed due to burning trouble which subsequently caused other faults to develop.

The bringing in of radiators is proceeding smoothly but slowly, especially in the Central District where, owing to parking restrictions, radiators in most cases have to be carried by hand to a central point and later picked up by the truck. Scraping is in full swing with the limited staff available and from now on it is hoped to average 500 - 600 per week.

#### ADVERTISING SECTION

Newspapers - Two notices were inserted in all the English, Russian and Chinese newspapers this month:

"Revision of Rates" on January 6, 1948  
"Debuture Notice" on January 30 and 31, 1948.

A certain amount of work was done by this section in connection with the Press Economy Campaign which is mentioned early in this Report under "General Comments".

SHANGHAI POWER COMPANY

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Various articles appeared in the North China Daily News, China Press and Shanghai Evening Post under the following headings:

"S.P.C. Starts Repair Work In Many Areas"  
"New Rates for Power, Gas, Water, Telephone Services Announced"  
"Revision of Public Utilities Rate Explained by Tsao"  
"Power Penalty Charges Net \$55 Million"  
"Shanghai Utilities"  
"Workers Idle As Industry Cuts"  
"Power Drain By Heaters Closes Mills"  
"Electric Heater Users Will Have Power Cut Off"  
"Power vs. Warmth"  
"Textile Mills Idle as Power Used for Heat"

General - One large poster, "Economy in Lighting", with copy-writing in English and Chinese, was painted for job printing, which is now pending approval.

Designs for the Company's "Life Saving" and "Safe Driving" award medals were drawn for the Distribution Department.

The painting of "Turbo-generator" charts is being continued.

*J. A. McKinney*  
J. A. McKinney  
Consumers' Engineer

cpo

WESTERN DISTRICT POWER COMPANY OF SHANGHAI, INC. U.S.A.

March 3, 1948

REV. 10-1-47  
APR 1948WESTERN DISTRICT POWER COMPANY OF SHANGHAI,  
FEDERAL INC. U.S.A.JANUARY STATISTICSAnalysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u>
				<u>%</u>
Residential Lighting)	1,711,657	1,631,364	80,293	4.9
Commercial Lighting )				
Residential Heating & Cooking)	349,126	639,014	-289,888	-45.4
Commercial Heating & Cooking )				
Bulk Supply Industrial	12,290,850	7,431,044	4,859,806	65.4
Bulk Supply Commercial	60,576	17,033	43,543	255.6
Small Power	3,149,243	2,779,199	370,044	13.3
Public Utility:				
Chapel Co.	1,379,755	1,148,400	231,355	20.1
Private Street Lighting	12,512	11,065	1,447	13.1
Municipal Street Lighting	24,385	21,727	2,658	12.2
Municipal Others	231,503	223,326	8,177	3.7
Total	19,209,697	13,902,172	5,307,525	38.2
Total Units Sold (12 months ending January 1948)	201,889,580	137,154,023	64,735,557	47.2
Total Units Purchased (12 months ending January 1948)	214,481,956	145,092,400	69,389,556	47.8
Distribution Losses (12 months average)	6.2%	5.5%	0.7%	12.7
Maximum Demand for Purchased Power - KW	34,222	30,780		

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u>
				<u>% over</u>
				<u>Last Year</u>
Chinese Cotton Mills	7,449,510	6,696,180	4,869,370	53.0
Other Cotton Mills	3,600	3,300	-	-
Total Cotton Mills	7,453,210	6,699,480	4,869,370	53.1
Flour Mills	309,150	284,250	230,700	34.0
Rubber Products	449,497	405,504	143,075	214.2
Paper Mills	752,764	757,987	95,976	684.3
Tobacco Factories	-	-	-	-
Ice & Cold Storage Factories	15,700	4,300	13,200	26.5
Silk Mills	252,580	242,420	234,160	7.9
Miscellaneous Textiles	2,107,175	2,093,548	1,362,047	54.7
Metal Working	183,818	164,790	110,356	66.6
Woolen Mills	379,580	380,025	306,520	23.8
Miscellaneous Other	386,376	331,873	65,644	488.6
Total	12,290,850	11,374,177	7,431,044	65.4

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CONNECTIONS

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during Month</u>
No. of Customers	22,285	22,165	20,734	120
" Refrigerators	2,321	2,318	2,238	3
" Cookers (Hired) x	783	783	781	-
" Radiators ( " ) x	97	170	321	-73
" Water Heaters ( " ) x	27	29	26	-2
" Misc. Appliances ( " ) x	29	29	29	-
H.P. of Motors	4,986	4,939	4,345	47

x Hired from S.P.C. and included in S.P.C. Statement.

CORRECTED LOAD

K.W. Lighting	15,674	15,565	14,774	109
" Heating: Comprising	(6,912)	(7,114)	(7,390)	(-202)
" Cookers	5,725	5,715	5,615	10
" Radiators	771	924	1,422	-213
" Water Heaters	62	65	58	-3
" Miscellaneous	354	350	295	4
" Motors	73,489	69,943	64,846	3,546
" Industrial Heating	1,094	1,099	1,026	-5
" Total	97,169	93,721	88,016	3,448

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	29
Total Customers Disconnected	55
Loss	26
Total New Customers Connected	146
Total Increase During Month	120

REPORT ON THE ENERGY CONSUMPTION OF HONG KONG, 1950-1951

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#### CONTENTS: TOTAL KILOWATT-HOUR SALES

The meter reading months were as follows:

	January	December	Difference
Schedule Rate Consumers	32.40	28.83	+ 12.4%
Bulk Supply Consumers	31.00	29.20	+ 6.2%
Municipal Consumers	32.00	29.00	+ 10.3%

Total Kilowatt-Hour Sales for January were 19,209,507 KWH compared with 17,736,000 KWH for December, an increase of 1,500,000 KWH or 8.3%, approximately the same as the percentage increase of the reading month. Lighting sales show the highest increase.

Residential & Commercial Lighting Sales showed a normal seasonal gain of 12.5% to reach a total of 1,711,657 KWH.

Residential & Commercial Heating Sales were 349,000 KWH compared with 340,000 KWH last month. A heavier seasonal increase is normal.

While the Restrictive Measures had little apparent effect on Lighting Sales, they have probably enabled a considerable amount of energy, which would otherwise have been used for heating, to be diverted to industrial services.

Industrial Bulk Supply took 12,290,000 KWH - about 900,000 KWH or 8% more than the previous month. Most of the increase was due to higher Cotton Mill usage.

Commercial Bulk Supply showed a normal seasonal increase of 12.6%.

Small Power Sales registered 3,149,000 KWH, an increase of 9.68% over last month's total.

Chapel Co. took 3.7% more than in December. The usage was 1,300,000 KWH.

Private Street Lighting sales increased by 7% to 12,512 KWH, while

Municipal Street Lighting showed no change.

Sales to Municipal Others increased seasonally by 10.86% to 231,503 KWH due to higher lighting consumption.

#### ANALYSIS OF LARGE INDUSTRIAL SALES:

Cotton Mills - Sales to this group increased by 750,000 KWH or 11.3% to 7,453,000 KWH. With one exception, all mills increased activities.

Flour Mills - The Hwa Fong Flour Mill used less, the Hoong Fong Flour Mill used more, than last month. The total was 309,000 KWH as compared with 284,000 KWH in December.

Rubber Products - This industry again registered increased usage and reached 449,000 KWH, a new post-war high.

Paper Mills usage, on the other hand, declined slightly by 2.0% to 752,000 KWH. Most of the Mills increased activities, but reduced operations by the Chung Woo Paper Products Factory brought the total down.

SHANGHAI IRON WORKS COMPANY LTD. SHANGHAI, P.R.C. (U.S.S.R.)

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SHANGHAI IRON WORKS COMPANY LTD. SHANGHAI, P.R.C. (U.S.S.R.)

Ice & Cold Storage Factories used 16,700 KWH compared with 4,300 KWH last month.

Silk Mill consumption was higher than in December on account of the longer reading month. The total was 252,000 KWH.

Miscellaneous Textiles showed no change as most mills barely maintained activities. The total usage was 2,107,000 KWH.

Metal Working Sales were 11.5% up from last month and reached 184,000 KWH. Few factories showed any increase, however, but the usage of three new consumers, formerly recorded as "Small Power" consumers (with a total consumption of 19,400 KWH), were included in the records of Bulk Supply.

Woolen Mills showed a slight seasonal decline with a total of 379,000 KWH compared with 380,000 KWH in December in spite of the longer reading month.

Miscellaneous Other Sales increased by 16.4% to 386,000 KWH compared with 332,000 KWH in December. Two new consumers, previously on "Small Power" records, were added to the list: Sing Hua Hat Factory - Usage 16,990 KWH; China Synthetic Chemical Works - Usage 19,530 KWH.

#### POWER SECTION

Applications accepted during the month for connection of power supply were as follows:

How Load: 9 Applications totalling 225 H.P.

The above load includes 120 H.P. for a new steel rolling mill and the remainder for loads of from 3 - 40 H.P. covers the following industries: weaving, metals and fountain pen manufacture.

All applications accepted are for night operation only.

The following load prospects were recorded during the month:

#### NEW LOAD

Name: Mow Lung Metal Works  
Address: 175 Yenping Road  
Load: 360 H.P.  
Estimated Maximum Demand: 200 KW  
Estimated Annual Revenue: CN\$1,860,000.00.-

This is a new rolling mill which is expected to be ready to start operating about April of this year. The installation will consist of 150 H.P. for hot rolling, 120 H.P. for cold rolling and the remainder of the load for auxiliary machinery.

Supply will be given at 6.6 KV and consumer will provide a suitable transformer and C.C.B.

Name: Shanghai Iron Works  
Address: 950 Robison Road  
Load: 450 H.P.  
Estimated Maximum Demand: 240 KW  
Estimated Annual Revenue: CN\$2,140,000.00.-



PHILIPPINE POWER COMPANY OF MANILA, INC. (P.P.C.)

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REF. NO. 111-20

The main load will be 400 H.P. for a steel rolling mill with an additional 50 H.P. for auxiliary machinery.

Supply to be given at 6.6 KV will be required about April of this year. Consumer has been advised regarding the purchase of suitable 6.6 KV equipment.

ADDITIONAL LOAD:

Name: Pac Shan Paper Mill  
Address: 200 Tamsin Road  
Additional Load: 300 H.P.  
Estimated Additional Maximum Demand: 180 KW  
Estimated Additional Annual Revenue: CN\$2,360,000.00.-

The consumer plans to install additional machinery consisting of one paper machine and three beaters, and this will bring the estimated total load demand up to 400 KW.

Supply will be given temporarily at 6.6 KV until the development of our 23 KV system in this area is completed when the supply voltage will be changed. Consequently, the consumer has been advised to purchase a 23 KV C.C.S. and transformer with dual primary winding.

Connection of supply for the aforementioned loads will be given for night operation only until additional generating plant is installed at Riverside.

Above revenues are based on the present power rates of CN\$6,275.- per KW/h.

Power Installation Inspections:

The following inspections were made during this month:

<u>No. of Inspections during January</u>	<u>Unauthorized Additions</u>
52	15

J. A. McKinney

cpo

SHANGHAI POWER COMPANY

SHANGHAI POWER COMPANY  
RIVERSIDE STEAM ELECTRIC STATION  
MONTHLY GENERATION REPORT  
JANUARY 1948

## OUTPUT &amp; PERFORMANCE DATA -

	A	B	C		D		E
	Total Station Net Output Kwh	Short Time Peak Demand Kw	St B Gross Generation Kwh	% of Total	St C Gross Generation Kwh	% of Total	Overall Heat Consumption Btu/net Kwh
Jan 1948	88,639,613	160,119	39,276,339	41.14	24,069,000	25.22	18,872
Dec 1947	89,282,846	164,368	41,002,116	42.63	20,574,000	21.39	19,090
Jan 1947	71,454,917	139,961	28,977,282	38.09	-	-	20,516
Jan 1946	39,169,890	90,185	24,980,865	58.94	-	-	20,588
% increase over							
Dec 1947	-	-	-		16.99		-
Jan 1947	24.04	14.40	35.54		-		-
Jan 1946	126.30	77.55	57.23		-		-
% decrease from							
Dec 1947	0.72	2.59	4.21		-		1.14
Jan 1947	-	-	-		-		8.01
Jan 1946	-	-	-		-		8.33

	Hourly Station Net Output Kwh	St B Hourly Generation Kwh
Jan 1948 (744 hr)	119,139	52,791
Jan 1946 (752 hr)	52,088	33,219
% increase over Jan 1946	128.73	58.92

Remarks:

The better economy compared with December 1947 due to (1) higher percentage of St C generation; (2) better boiler efficiencies; (3) lower back pressure resulting from lower river water temperature.

The lower heat rate compared with January 1947 and January 1946 due to (1) 1/c of St C; (2) 1/c of TG 16; (3) better Station load factor; (4) better equipment conditions.

SHANGHAI POWER COMPANY

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## STEAM-GENERATORS -

SG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since last o/c for Maint	Total Hours during the month	
	o/c	i/c				Not Available	Oper-ated
31	-	-	0	---	1415	0	744
30	10	11	11	Copes and whistle valve repaired (IDA) - PAF motor rotor rebalanced.	1190	11	732
29	3	19	375	Annual overhaul after 15059 hr operation (IDS) - Feed drum examined, scraped, wire brushed, painted. Boiler & Ec press tested, one side wall tube renewed. Main tubes, arch tubes, wall & screen tubes turbo-cleaned. Sh inlet box opened, scale removed from tube bends. Various valves overhauled, tested. Baffle sealing repaired, ashpit hopper overhauled. Furnace brickwork patched, 1000 bricks renewed. PAF & IDF examined. Ec relief valve tested, water alarm checked. All aux motors and starters overhauled. Temp recorder wire & conduit renewed. Main stop valve position indicator repaired.	499	375	351
28	-	-	0	---	1096	0	744
27	-	-	0	Aux motors & starters routine cleaned.	1758	0	726
26	10/24/47		744	General overhaul after 8413 hr operation progressing (IDS).	0	744	0
25	3	4	11	RH soot blower master valve changed (IDA) - 2 SB drains overhauled.	1127		
	31		6	Front wall repair progressing (IDA)	649	17	704
24	3	4	28	Leaky Ec repair (IDA)-2 Ec caps changed. 2 Sh caps rejointed. 2 stop valve bypass overhauled. 1 chemical injection valve changed. Grate washed, 7 ash pusher plates changed. Stoker gear cleaned, 3 stroke adjuster bolts & 6 stroke adjusters changed. SD motor changed. Ph washed. SB system cleaned, lubricated. Ec press tested.	87		
	24	25	31	Grate & ashpit wall repair (IDA) - RH rear ashpit wall rebuilt, front wall patched. Ph washed. Grate inspected; 2 dump bar racks & brackets, 11 ash pusher plates changed. Stoker gear cleaned, inspected. 1 connecting rod, 4 stroke adjuster bolts, 7 stroke adjusters, 2 cod pcs & 2 gauge glasses changed. Aux motors & starters cleaned. One ashpit door changed.	207	59	270
23	17	18	14	LH Sh drain valve changed (IDA) - 1 air valve & RH stop valve bypass overhauled.	1713		
	22		221	Routine cleaning progressing (IDS).	104	235	504

SHANGHAI POWER COMPANY

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SG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since last o/c for Maint	Total Hours during the month	
	o/c	i/c				Not Available	Operated
22	24 26	25 28	11 47	Ph washed (IMS) Leaky Ec repair (IDU) - Unit soot cleaned. 4 holed & eroded Ec tubes renewed, header seats welded up. 14 Ec caps changed. Copen valve thermostat changed. Stoker gear cleaned, inspected. 2 stroke adjusters & bolts renewed. Stoker driving shaft bearings cleaned, lubricated & adjusted. Ec press tested. Aux motors & starters cleaned, examined.	275 14		
21	1 10	1 11	6 16	Ph elements washed, examined (IDA). Sh drain valve renewal (IDA) - 1 Sh drain & 1 SB master valve renewed. Stop valve bypass rejoined.	79 215	58	269
	22	22	2	Ph washed (IDA) - Aux motors & starters cleaned.	270	24	707
20	1	1	7	Repairs to Ec & stoker (IDA) - 1 dist tube re-expanded, 4 Ec caps renewed. 5 Sh drains overhauled. 4 stroke adjusters renewed. Ec press tested. Aux motors & starters cleaned, examined.	332		
	4	4	1	One set ash doors & levers changed (IDA) - stoker gear box glands repacked.	5	8	285
19	1 21 27	1 21 27	6 2 5	Ph elements washed, examined (IDA). Ph elements washed (IDA). Ph elements washed (IDA) - FD communicating damper between SG 17 & 19 freed.	246 475 145	13	716
18	3	4	12	One upper coal chute & 1 copes valve changed (IDA) - LH blowdown NR valve cover rejoined, pipe patched. Ashpit water isolating valve changed. One broken stoker crankshaft renewed. Aux motors & starters routine cleaned.	86	12	277
17	12/23/47 2		31	Repairing of steam legs and leaky tube caps completed (IDU) - 14 main tube caps rejoined. One return tube re-expanded. Sh drain cocks overhauled. 12 Sh caps renewed. Defective rivets on steam leg flanges renewed. Pipes press tested. Grate cleaned, examined. Stoker gear box overhauled. Furnace chamber brickwork made good. SB system overhauled, defective parts replaced. Unit soot cleaned, press tested.	652		
	17	18	18	RH Sh drain valve overhauled (IDA) - RH SB master valve changed. All FD dampers cleaned, eased & lubricated. Coal chutes patched. Ashpit water service cleaned, 8 sprayers, 1 set ash doors & levers changed.	195		
	20	20	4	Stoker gear repair (IDA) - No. 4 gear box overhaul, 1 shaft & 2 bushes renewed. SD motor changed.	2	53	197
16	3	4	4	Aux fan engine strainers cleaned, oil changed (IMS)	926	4	702
15	13		456	Partial overhaul after 3362 hr operation progressing (IMS)	313	456	273

## SHANGHAI POWER COMPANY

SG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hrs since Last o/c for Maint	Total Hours during the month	
	o/c	1/c				Met Available	Operated
14	3	4	4	Auxiliary fan engine strainers cleaned, oil changed (IMS).	117		
	22		223	Routine cleaning progressing (IMS).	432	227	484
13	10/19/47	7	154	General overhaul after 3249 hr operation completed (IMS) - Drum opened, cleaned, examined and painted. No active pitting or corrosion found. Studs for safety valves hammer tested. Drum studs for check valve and LH water gauge renewed. All boiler tubes turbo-cleaned, examined, in fair condition. All Ec tubes turbo-cleaned, examined, 63 pitted or corroded tubes renewed. All front caps removed, headers cleaned internally. 10 corroded nipples on mud box renewed. Sh tubes and headers examined, no scale deposit, one holed tube cut, plugged. Furnace wall repaired, all baffles tightened. All mountings overhauled and tested. Grates overhauled. All riddling chutes renewed. FD dampers eased. Safety and relief valves tested, water alarm checked.	466		
	29	30	24	IDF motor switch overhauled (IMS) - FDP motor switch changed.	471	178	432
12	26	26	4	Frozen SB master valves and Copes thermostat repaired (IDA).	372	4	194
11	12/20/47	9	201	Partial overhaul after 3661 hr operation completed (IMS) - Drum opened, examined, no active pitting or corrosion found, paint applied in June 1947 still good. Two bottom rows of main tubes and down comers turbo-cleaned, examined, condition fairly good. Headers examined for scale deposit. Mud box and all nipples cleaned. Sh tubes and headers examined, no scale deposit. One corroded main tube and 4 pitted Sh tubes renewed. Baffles tightened. Mountings overhauled, tested. Center and RH grates overhauled. Unit pressure tested. Safety valves, Ec relief valve and water alarm checked.	197		
	21	21	5	Motors and switches routine cleaned (IMS).	131	220	417
	27	28	14	One holed main tube renewed (IDU).	153		
10	10	11	13	3 leaky Ec caps rejoined (IDA).	49		
	26	26	4	Frozen SB master valves and Copes thermostat repaired (IDA).	13	48	159
	28	29	31	One holed main tube renewed (IDU).	1,239		
9	10	11	14	Leaky Sh caps rejoined (IDA).			
	21	21	5	Motors & switches routine cleaned (IMS) - Choked riddling chutes cleaned. Burnt FD damper wire renewed.	76	19	384

SHANGHAI POWER COMPANY

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Notes:- 1. Unscheduled Outages -(a) Units taken out immediately (IDU)

<u>SG No:</u>	<u>22</u>	<u>11</u>	<u>10</u>	<u>Total</u>
Times o/c	1	1	1	3
Hours o/c	47	14	31	92

(b) Repairs done on a deferred date (IDA)

<u>SG No:</u>	<u>30</u>	<u>25</u>	<u>24</u>	<u>23</u>	<u>21</u>	<u>20</u>	<u>19</u>	<u>18</u>	<u>17</u>	<u>12</u>	<u>10</u>	<u>9</u>	<u>Total</u>
Times o/c	1	2	2	1	3	2	3	1	2	1	2	1	21
Hours o/c	11	17	59	14	24	8	13	12	22	4	17	14	215

2. Tube Renewals -

<u>SG No:</u>	<u>29</u>	<u>22</u>	<u>13</u>	<u>11</u>	<u>10</u>	<u>Total</u>
Main Tubes	-	-	-	2	1	3
Wall Tubes	1	-	-	-	-	1
Ec Tubes	-	4	63	-	-	67
Sh Tubes	-	-	-	4	-	4
						75

BOILER HOUSE AUXILIARIES -1 - Feed Water Pumps (FWP) -

FWP 26 - Discharge end shaft sleeve tightened.  
 FWP 25 - Oil coolers cleaned.  
 FWP 20 - Valve FP 20/D3 replaced after overhaul.  
 Discharge end bearing adjusted.  
 FWP 12 & 15 - Governor cleaned, tested.

2 - Gas (Flue) Washer Pumps (GWP) -

GWP 3 - General overhaul after 5,828 hr operation progressing.  
 FWP 4 - Wearing rings, ball bearing and ball bearing housings renewed.

3 - Auxiliary Fans in BH 2 -

IDF 10-12 - Motor slipping short circuit gear, contacts renewed.  
 IDF 13-15 - Starter overhauled.  
 IDF 13-15 - Starter changed.

RAW COAL HANDLING PLANT -

Tr 1 - Coal grab changed, 2-ton grab installed. Grab shackle plate and 3 pins, operating motor brake pulley, brake lining and 2 operating wire ropes renewed. Faulty traverse motor limit switch cable renewed. Scale tested, balanced.  
 Tr 2 - Scale tested. Motor and starter routine cleaned.  
 Tr 3 - Damaged coal chute and platform repaired. Hoisting and slowing gear overhauled. 2 steel wire ropes for hoisting chute renewed. Main motor contactor pivot pin replaced.

SHANGHAI POWER COMPANY

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RAW COAL HANDLING PLANT - (continued)

- RT 2 - Worn coal feed table gears dressed up. Operating brake band renewed. Scale tested.
- BT 2 - Travelling gears repaired. Vertical travelling shaft welded. Motor and starter routine cleaned.
- BC 1,3,11,12,13,14,15,19,20,21,22 - Motors and switches routine cleaned.
- BC 2 - Motor changed for overhaul.
- BC 11 - Renewed 65 ft of 1" piping and 3 valves for water service.
- BC 19 - Motor changed, motor pinion renewed.
- BC 26 - Renewed 46 ft belt, 8 sets fastenings and 2 wood boards for pulleys.
- BC 28 - Broken motor cable and conduit renewed.
- BC 44 - Renewed 20 ft belt, 5 sets fastenings.

FUEL OIL HANDLING PLANT -

- FOP 11 - One oil end piston rod changed.
- FOP 10 - One discharge valve changed.
- FOH in BH 2,3,4 & 5 - Tubes cleaned.

PULVERIZED FUEL HANDLING PLANT -

Usual inspection and routine cleaning made.

Ash Handling Plant -

- 1 - Electric Locomotives (LE) -
- LE 2 - General overhaul completed.
- LE 3 - Faulty trolley collector roller changed.
- LE 4 - Routine cleaned.
- 2 - Trucks & Tracks - Maintenance work progressing.

TURBINE-GENERATORS -

TG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
	o/c	1/c				Not Available	Operated
18	17	18	6 $\frac{1}{2}$	Brush gears cleaned, examined (IMS) - Air and oil coolers cleaned.	1,069		
	20	20	4 $\frac{1}{2}$	Worn exciter roller bearing renewed (IDU) - Greasing nipple changed.	52	11 $\frac{1}{2}$	731
16	3	4	13	Routine cleaning (IMS) - 23 kv and neutral OCD overhauled. Governor control motor limit switch adjusted. Main oil coolers cleaned.	1,148	13	722

SHANGHAI POWER COMPANY

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TG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
	o/c	i/c				Not Available	Operated
15	12/31/47						
		1	2	Main B/B links cleaning completed (IMS).	420		
	10	11	1 1/2	Routine cleaning (IMS) - Governor valve dismantled, cleaned. Main oil coolers cleaned.	223		
	16	16	3 1/2	Governor repair (IDA) - All wearing parts honed smooth. Clamp on steam range repaired.	128		
	23	23	3 1/2	Condenser tested (IMS) - 7 tubes plugged.	162		
14	24	25	5 1/2	Condenser tested (IMS) - 3 tubes plugged.	18	28 1/2	698
	24	25	8 1/2	Routine cleaning (IMS) - Governor cleaned, overspeed trip tested, operated at 3300 rpm. Main oil coolers cleaned.	595		
	31	31	3 1/2	Condenser tested (IMS) - 12 tubes plugged.	154	12	722
	31	31	1 1/2	Worn governor bush changed (IDU).	589		
13	6	7	31 1/2	Air and oil coolers cleaning progressing (IMS).	591	33 1/2	702
	31	31	1 1/2				
12	11/13/47						
		18	416	General overhaul after 14,730 hr operation completed (IMS) - Cylinder upper half removed, steam rotor and diaphragms examined, bottom half removed, exhaust trunk joint remade, expansion piece overhauled and tested, sliding foot washer adjusted. 3 stages diaphragms (2nd, 3rd and 6th) renewed, other stage diaphragms and nozzle blocks in good condition. All rotor blading condition good, 6th wheel blade rivets good for two more years at least. Bearing metal good, excessive oil clearances readjusted. Alignment checked, distorted coupling faces dressed up, paper liners fitted. All condenser tubes removed, cleaned, condenser int shell painted, top rows of tubes renewed, air and water leaks tested, found tight. Various parts and auxiliaries inspected, overhauled and defected parts repaired or renewed.	186	416	328
10	17	18	16 1/2	Routine cleaning (IMS) - CP 'A' & 'B' motors cleaned, starters overhauled.	1,636	16 1/2	720
9	20	20	1 1/2	All slipring brushes changed (IMS) - Exciter brush gear cleaned, examined. Main oil cooler cleaned.	516	1 1/2	722



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TG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
	o/c	1/c				Not Available	Operated
8	14	14	6	Brushgear cleaned (IMS) - Main oil cooler cleaned.	406		
	20	20	1½	All slipring brushes changed (IMS) - Exciter brush gear cleaned, examined.	138		
	27	27	2½	Condenser tested (IMS) - No leaks.	166	10	726
7	2	2	4½	Routine cleaning (IMS) - Governor valve eased, cleaned, oil leaks repaired.	494		
	3	4	11½	Condenser tested (IMS) - One tube plugged. LP balance pipe joint remade.	19		
	11	11	6½	Routine cleaning (IMS).	151		
	15	15	7	Worm and worm wheel examined (IMS) - Pedestal insulation tested.	77		
	31		2	Routine cleaning progressing (IMS).	369	31½	631
5	2	2	2	Cylinder cover manhole joint remade (IDA).	18		
	20	20	6½	Cooling water pipes in bearings tightened (IDA) - Gland steam leak off valve overhauled. 23 kv and neutral OCB overhauled.	408		
	22	22	1½	Condenser tested (IMS) - One tube plugged.	44		
	27	27	1½	Emergency valve repacked (IMS).	127		
	31		23½	Air washer gear box repair progressing (IDA).	66	34½	653
4	1	1	2	Brushgear routine cleaned (IMS).	174		
	18	19	16	Routine cleaning (IMS).	374		
	23		216	General overhaul after 12,864 hr operation progressing (IMS).	72	23½	446
1	12/31/47						
		1	2	Brushes renewed (IMS).	80		
	3	4	19	Routine cleaning (IMS).	18		
	10	11	5½	Governor examined (IMS).	116		
	20	21	22½	Routine cleaning (IMS).	156	49	491

Notes:- Unscheduled Outages -(a) Units taken out immediately (IDU) -

TG No:	18	13	Total
Times o/c	1	1	2
Hours o/c	4½	31½	36½

(b) Repairs done on a deferred date (IDA) -

TG No:	15	5	Total
Times o/c	1	3	4
Hours o/c	3½	31½	35½

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TURBINE HOUSE AUXILIARIES -

- 1 - Circulating Water Pumps (CMP) -  
 CMP 14 - General overhaul after 10,360 hr operation completed.  
 CMP 15 - General overhaul after 11,026 hr operation progressing.  
 Motor windings cleaned, switch overhauled, O/L relay cleaned, tested.  
 CMP 21,24,26 - Stuffing boxes repacked.
- 2 - Service Water Pumps (SMP) -  
 SMP 4 - Steam throttle valve repacked.  
 SMP 5 - General overhaul after 11,911 hr operation progressing.  
 Motor windings cleaned, switch overhauled.
- 3 - Air Compressors (Cp) -  
 Cp 1 - Belts tightened.  
 Cp 3 - Routine cleaned, bearings adjusted.

FLOATING EQUIPMENT -

- Coal Lighters (CL) -  
 CL 21-23 - General overhaul progressing.

MISCELLANEOUS MECHANICAL EQUIPMENT -

- 1 - BH 4 Steam Range: Valve packing and one valve bridge renewed on MR 4/4 and MR 5/4.
- 2 - BH 2 SW Line: Several LP frozen valves overhauled.
- 3 - TW Booster: Pump overhauled.
- 4 - Office Hot Water Boiler: Boiler opened, cleaned. 2 Heaters cleaned int of scale. Relief valve ground in.
- 5 - BH 4 Lift: Wire ropes examined, lubricated.

ELECTRICAL EQUIPMENT -

- 1 - 23 kv SH Equipment -  
 BP 1, BS 2-3, Ro 3, BP 3 & Chapel - OCB overhauled.  
 Aux North B/B - B/B routine cleaned. Cellwork and isolating link for the following cleaned, examined:  
 BS 4, AD 13, AD 14, BP 5, AE 25, AE 26, BP 6, AA 52, AG 20, AG 21, BP 7, AG 17.  
 Aux South B/B - B/B routine cleaned. Cellwork and isolating link for the following cleaned, examined:  
 IT 1, AK 36, IT 2, ST 7, BP 1, TG 7, ST 8, AB 3, AB 4, TG 16, BP 2, AB 9, AB 10, HST 1, AB 7/8, BP 3, AC 6/31, AC 23, AC 24, BS A.  
 Sections 3, 4, 5 & 6 Main B/B - B/B routine cleaned. Cellwork and isolating link for the following cleaned, examined:  
 AC 33, Ro AN, HST 2, AH 53, BS 2-3, Ro 3, BS 3-4, BP 4, RA 4, BS 4-5, Ro 5, BS 5-6, Ro 6, BS 6-7.

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- 2 - Converters -  
MC 1, 2 & MC 4 - Brushgears cleaned, worn brushes changed.  
MC 3 - Undercutting and machining of commutator progressing.
- 3 - Transformers -  
ST 7 - 23 kv & 350 amp OCB overhauled.  
ST 13 & ST 16 - 6.6 kv & 350 amp OCB overhauled.  
HST - Earth fault on control cable located & repaired.
- 4 - Station 'C' Equipment -  
IDF, PBF, PAF & Ph - Motors, switches, controllers,  
routine cleaned.  
FFF, SC & PF - Motors and switches routine cleaned.  
PMF 5, 6 - Control relay broken pins renewed.  
VF 7, PM 7, PMF 7 - Motors, switches, controllers,  
routine cleaned.  
VF 7 - Emergency stop button installed.  
EF 7 - Defective motor bearing repaired.  
PMF 7 - Emergency stop button re-located.  
CTP - Alarm and signalling system re-installed.  
BH 5 Lift - All equipment routine cleaned.
- 5 - Miscellaneous -  
(a) Construction of smoke signalling panel progressing.  
Multicore cables for relays installed in position.  
(b) Indicating lamp boxes for BH 5 soot blowing and  
ashing installed.  
(c) Starting switch for coal briquette motor overhauled.  
(d) Defective BH 4 lift brake, solenoid repaired.

RIVERSIDE WORKSHOP -

- 1 - Overhauled 14 motors, 3 exciter armatures, 2 DC generators,  
1 synchronizing motor, 6 transformers; machined 60 copper  
socket adapters, 230 copper connectors, 170 comm segments,  
2 MS motor shafts, 50 copper contacts, 32 copper sockets;  
made 4 GI pole bands, 40 grid type fuses, 10 cable potheads,  
2 copper jointing sleeves, 150 copper flag sockets, 10 copper  
tubular cable sockets, 24 moving sparking contacts, 4 flexible  
copper connections, 12 sets anchor brackets, 50 sets brass  
safety washers, 30 GI tags, 3000 sticks solder, 800 cone  
insulators; repaired 1 short circuit gear; reconditioned  
1 set pole transformer links, 6 copper joint sleeves,  
29 MS back plates.
- 2 - Machined 1,152 MS ASTM & brass bolts, studs and screws,  
400 brass bolts and nuts, 250 MS Ec tubes, 200 brass  
plugs, 200 fibre bushes, 150 brass expansion joints,  
150 MS nuts, 100 steel tube cleaners, 150 MS pipes and  
pipe ends, 84 nipples, 94 CS flanges, 613 miscellaneous  
articles for various purposes; emery finished 170 Ec tubes  
and caps; ground CI transformer shells, 2 steel cutting  
blades; bent 10 binding wire bands; made 9 MS coal pipes,  
5 CI sprocket wheels with MS shafts, 4 MS globe and angle

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valves, 4 GI buckets, 6 MS crank shafts, 3 MS 'T' pipes, 1 set GI face machine, 2 MS strainers, 2 MS angle stand, 30 sets steel links, 12 CI cones, 4 ash buckets, 3 steam heaters; repaired 2 bolt cutters, 1 screw jack, 1 masonry saw cut machine, 48 burner tips, 6 CI gear boxes, 1 brass bush, 6 FO pipes, 28 pipe flanges, 1 governor link, 20 sets brass bushes, 1 coal crusher machine; overhauled 1 blower, 3 steam valves, 2 Copes valves; tested 8 steam pipes, reinstalled 17 sets bearings, renewed 1 CI impeller and brass sleeves, 1 set LE large wheels; balanced 1 IDF impeller.

- 3 - Made and fitted roof truss for BC 41 & 42 housing, 6 MS Ph hoppers, 1 MS hopper; made 2 MS baffles, 1 MS door, 1 MS cable channel, 1 MS funnel, 2 MS covers; renewed 1 MS Ec baffle, SG 23 wall casing plates, BC 26 steel structure; bent 19 MS pipes, 20 boiler tubes, 4 'U' bolts, 1 MS plate, 1 copper tube; straightened 4 MS shafts, 2 MS angles, 4 MS spanners; annealed 125 boiler tubes, 300 Ec tubes, 252 Ec cap bolts and nuts, 28 MS bolts and nuts, 8 copper tubes; tempered 50 steel expander rollers, 36 steel springs; forged 6 MS pinions, 60 cold steel chisels, 24 MS bolts and nuts, 18 copper fixed sparking contacts, 403 MS and brass bolts and nuts, 928 MS articles for various purposes; repaired 280 tube cap bridges, 2 bolt cutters, 96 steel chisels; cut 28 MS plates and bars.
- 4 - Electric welded 48 pipe flanges, 2 pipes, 2 transformer tanks, 3 steam heating radiators, 50 FO tube clamps, 4 MS angle guard frames, 2 MS funnels, 2 MS plates and gratings, 250 concrete pole base frames, 5 shafts, 3 valve bodies and seats, 2 gear wheels, 40 cross arms, 13 square stay clamps; gas welded 6 gear box bearings, 1 pump casing, 2 valve seats, 1 trap chest, 26 links, 38 pipes, 80 slip containers, 3 FO pipes, 4 window frames; gas brazed 10 sets transformer tails, 40 grid fuses, 7 brass impellers, 9 brass trolley wheels; gas refaced with stoddite 32 IDF blades, 3 valve seats; galvanized 1350 and tinned 626 articles for Distribution Department.
- 5 - Foundry produced the following castings:

22,216	lb	cast iron
320	lb	HD brass
5	lb	GP brass
2,135	lb	brass ingots
620	lb	copper ingots
- 6 - Building & Wharf Maintenance:
  - (a) Repaired window frames of BH 4 and Office Building.
  - (b) Maintenance work to all plumbing and piping work progressing.
  - (c) Removed steel windows in Station 'C' 5th floor and upper half ventilators on TH roof.

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- (d) Construction of retaining walls on 3 sides of Coal Storage 'A' completed.
- (e) Roofing of TH progressing.
- (f) Reconditioning and decoration of Conference Room completed.
- (g) Extension of Workmen's Service Building progressing (80% completed).
- (h) Renovation of parts of BH 4 walls progressing (20% completed).
- (i) Glazed 1300 missing window panes in Station.
- (j) Renovation of Riverside Inquiry Office and installation of barriers and turnstile progressing (70% completed).
- (k) Erection of brick housing for BC 41 - 42 progressing (70% completed).
- (l) Erection of cable duct near TG 7 progressing (70% completed).

MISCELLANEOUS NOTES

The labour roll at Riverside totals 1319 including 19 Foreign and 80 Local Agreement, 39 Russians, 9 Subsidiary Staff (Foreign Watchmen), 23 Chinese Apprentice Engineers, 1 Student Engineer and 1148 Chinese Staff.

No major labour troubles were reported during the month and it can be said that the general standard of work has improved slightly.

The Labour Union held an inaugural meeting on January 8, and a number of workmen were given leave of absence by the Management to attend this meeting which was held for the purpose of electing a new body of Union officers. Switchman GR 11 was elected to serve on a full time basis as Riverside Branch representative. This was agreed to by the Management and a new switchman has been assigned to take over his duties in the Control Room.

Some nine Trade Apprentices concluded their training period on January 21, following which a meeting was held at the Head Office and recommendations were submitted to the Management on this subject.

The Student Engineers at present on duty at the Rotary Board have now reached a standard comparable to the Russian Switch Board attendants. Further training will be continued to make them proficient in 'Starting' and 'Stopping' the Rotary Converters, which operations were not called for from the Russian personnel.

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On completion of their four year training period, these trainees could be considered as Rotary Operators on the Regular Staff and their special educational training would automatically cease.

The survey of requirements for the number of rubber boots and raincoats has now been completed.

Complaint lodged by the workmen alleging the Company's briquettes as being poor in quality was not considered as fully justified, but higher grades could be made available at a correspondingly higher cost. The main complaint being against the reputed excessive smoke, the use of riddlings in the mixture could be eliminated and same replaced by anthracite; tests on various grades to be undertaken.

GENERAL -

Staff -

During the month we lost the services of two Operation men - one Charge Engineer (died) and an Assistant Charge Engineer.

An Engineer-Trainee after satisfactory completion of his 3-month training period was engaged as an Assistant Engineer in the Machine Shop.

The training of BH Attendants is proceeding very satisfactorily, and consideration is to be given to the engaging of additional men for training.

Operation -

Record Daily Generation - The plant continued to be operated at maximum output of available equipment, the maximum generation for the month occurred on January 22, 1948, ie, 3,294,508 Kwh.

Our total station net output decreased by 0.72% from last month, namely 88,639,613 Kwh as against 89,282,846 Kwh, this decrease being due to less Station 'B' generation, TG 4 o/c for general overhaul despite approx 17% increase in Station 'C' generation.

The hourly station net output increased by 0.24% from 145,740 Kwh to 146,090 Kwh.

The load factor based on gross generation decreased from 81.88% in December to 81.31% for January.

SG UNITS -

SG 31 -

This unit operated very successfully throughout the month having completed 13,094 hours continuous operation.

SHANGHAI POWER COMPANY

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Apart from excessive and increasing pressure draft (now 3 in.) across the preheater which indicates an appreciable degree of clogging, it would appear that we could look forward to a much longer run.

It is proposed to take this unit off load during the Chinese New Year period for thorough cleaning.

During the month we were forced to alter our optimum fuel ratio on this unit, as owing to an acute coal shortage we had to reduce the coal fired to this unit by 100 tons daily with consequent increased oil consumption of approx 50 tons daily.

Whilst this alteration in fuel ratio, now 60% oil and 40% coal increased our slagging problems considerably, we were able to maintain the unit in successful operation.

We have to record the lifting of a safety valve on the LH superheater outlet during light boiler loading; after a very short time the valve reseated itself and no further difficulties in this respect have been encountered.

General -

As usual, a considerable amount of maintenance and repairs were carried out on SG units, a total of 2,765 hours being spent upon repairs and overhauls of all units. The major overhaul including re-headering of SG 26 is proceeding satisfactorily, the workmen have frequently to be taken away from this unit for more urgent work.

The unscheduled outages show a decrease from previous month, namely 3 as against 5, the deferred outages show an increase, namely 21 as against 7 for previous month.

The total hours SG were o/c for unscheduled and deferred outages show a decrease, namely 307 hours as against 542 for previous month, and were made up as follows:-

Unscheduled Outages - 92 hours as against 457 hours.  
Deferred Outages - 215 hours as against 85 hours.

Tube renewals registered a considerable increase, namely 75 as against 12 for previous month.

Major maintenance work for the month consisted of the following:-

SG 29 - o/c 375 hours for annual overhaul; completed.  
SG 26 - o/c 744 hours for general overhaul; work progressing.  
SG 15 - o/c 456 hours for partial overhaul; work progressing.  
SG 13 - o/c 154 hours for general overhaul, 63 Ec tubes renewed; completed.  
SG 11 - o/c 201 hours for partial overhaul; completed.

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TG UNITS -

Major overhaul of TG 12 completed and unit in successful operation.

Major overhaul of TG 4 unit after 12,864 hours operation commenced on January 23.

Apart from TG 4 and TG 12, all work on TG units was of a routine nature this month, and as in previous months, practically all such work has been carried out at week-ends and other off-peak periods thereby necessitating considerable overtime payments.

Apart from TG 4 and TG 12 which were o/c for general overhaul, the total hours TG units were o/c for all causes, amounted to 258½ hours only.

Unscheduled Outages - 2 - totalling 36½ hours.  
Deferred Outages - 4 - totalling 35½ hours.

ELECTRICAL -

Electrical work during the month was mostly of a routine nature.

The repairs of two Westinghouse 4200 kva Transformers by an outside Contractor are proceeding slowly. This work is receiving regular supervision by our engineers.

Designs and specifications for main office lighting circuits in progress.

FUEL OIL SUPPLY -

Fuel oil consumption for the month totalled 31,117 long tons, the maximum daily consumption being 1,090 tons and average daily consumption 1,003.77 tons.

WORKSHOPS -

The Workshop continues to be overloaded with work necessitating considerable overtime and the placing of work with outside Contractors.

The Winding Shop is heavily loaded with repair work, approx 6300 Kva of Transformers, 4000 hp motors and 2000 Kw of DC equipment undergoing repair.

REHABILITATION & CONSTRUCTION -

Erection of platforms above underfeed stoker gear - SG 18, 20, 22 & 24: completed.

Construction of reinforced concrete retaining walls - Coal Storage 'A': completed.



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Conference Room - reconditioning and decoration: completed.

Renewal of 4, Ash Chutes, Painting, etc, at Ash Wharf: completed.

Re-roofing of Turbine House: Work above Pump Bay No. 2 - 100% completed. Control Room Roof - 100% completed. Work above Turbine House - 60% completed.

South Wing Extension Workmen's Service Building. Dwg 21/342, sheets 40-41-42 - progressing, 80% completed.

Renovation of parts of the North, South, East and West Walls of Boiler House No. 4 as shown on Drawings - progressing, 20% completed.

Glazing of missing window panes for Station - 1300 panes set.

Renovation of Riverside Inquiry Office and Installation of Barriers and Turnstile - progressing, 70% completed.

General overhaul of Coal Lighter Nos. 21-23. - progressing, 80% completed.

Erection of Brick Housing for BC 41-42 - progressing, 70% completed.

Erection of cable duct near TG 7 as per Dwg. HX-D-23/315 - progressing, 70% completed.

Supply of electrodes, tools, labour, etc, to carry out the building up by welding of 1100 tube holes and 50 nipple holes on 100 economiser headers - progressing, 30% completed.

TG 6 - ex Hongkong 10,000 kw Unit; equipment arrived on site and suitably stored.

TG 11 - (1) Condenser returned to original position on Mat.  
(2) Patch put on both outer sides of condenser body at the junction of the vertical and horizontal flanged joints.  
(3) Re-conditioning condenser water-boxes in progress.  
(4) Erection of pedestal re-inforcing steelwork and formwork commenced.

FUEL -

Coal receipts were 9,154 tons during January, made up of two kinds of coal; 17,362 tons were burned and 134½ tons issued by Storero, making a total of 17,496½ tons. Total stocks on February 1, 1948 (8.00 am) were 13,037½ tons, consisting of 10,806½ tons on mechanical storage, and 2,231 tons in bunkers. Coal deliveries during the period were 8,342½ tons less than burned plus issued, and stocks were decreased a like amount.

Oil receipts were 31,010.59 tons during January and 31,117 tons were burned, thus decreasing stocks on February 1, 1948 (8.00 am) to 2,410.08 tons.

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MUD DREDGING -

During the month 4,640 cubic yards of mud (29 lighters of 160 cubic yards per lighter) dredged from in front of our wharves and pump houses.

COKE & BRIQUETTES -

During the month no coarse coke was recovered from ashes, and 125,400 lb issued for Company use, leaving 701,927 lb in Stores on February 1, 1948.

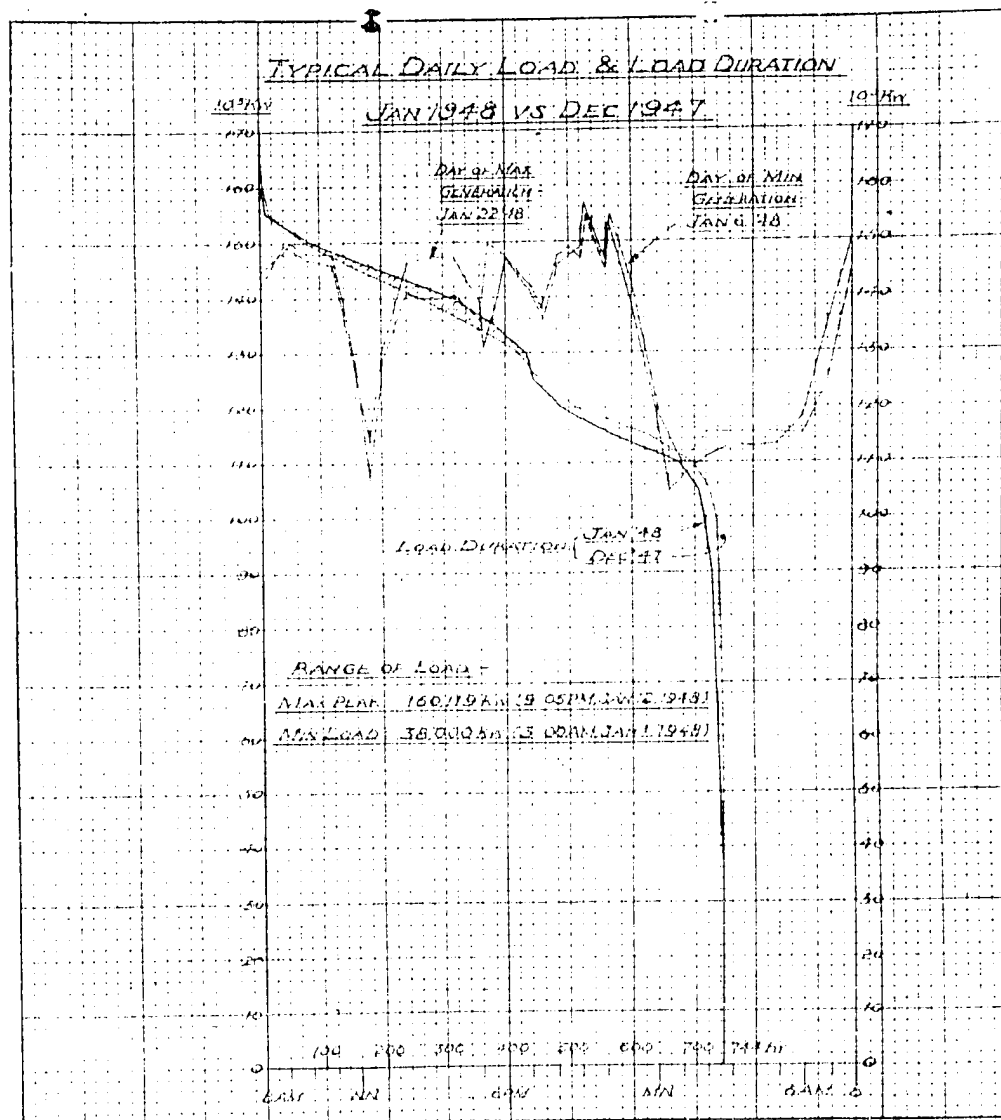
During the month 404.43 metric tons of anthracite coal was received from local suppliers and 121.20 metric tons of anthracite issued for the manufacture of briquettes for sale to employees. Total amount of briquettes made was 345.8 metric tons, of which 320.8 metric tons were issued.

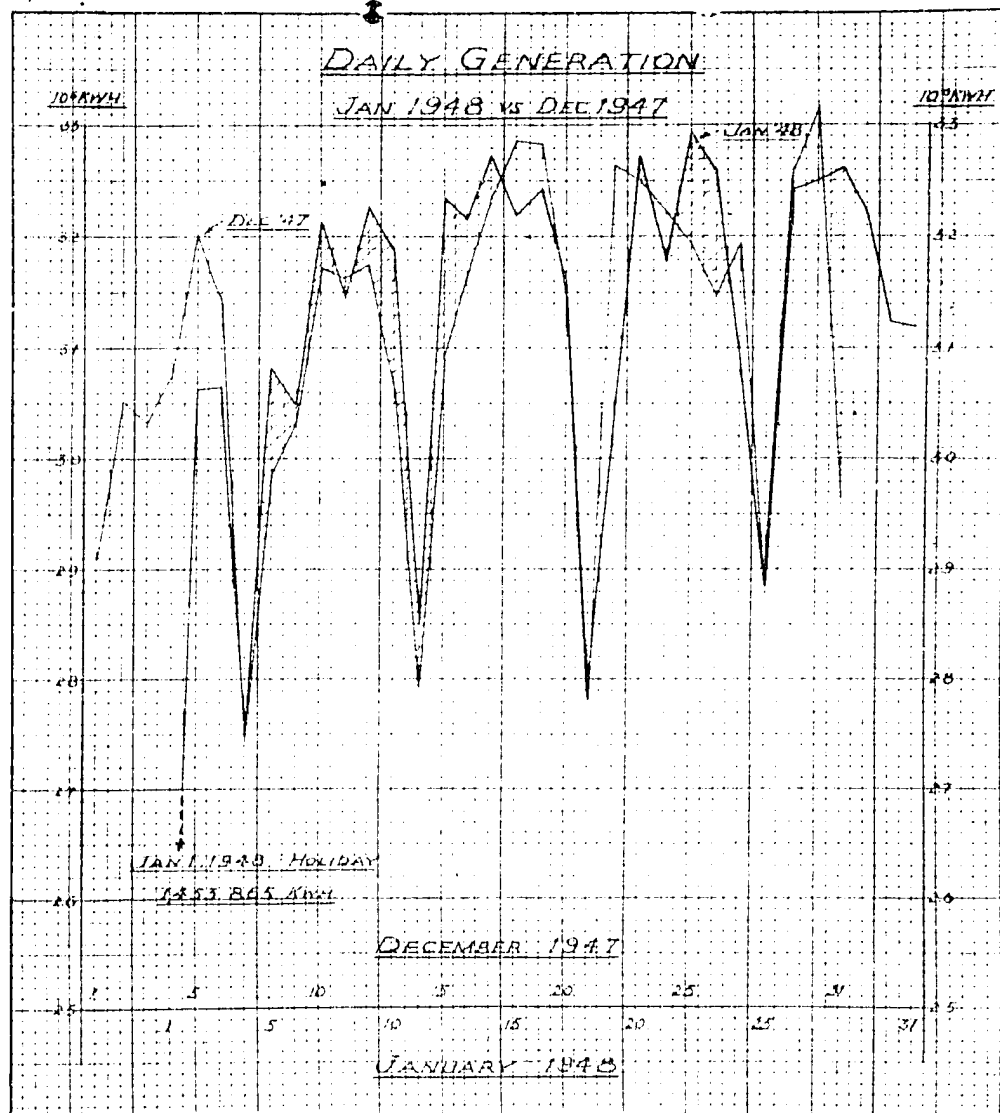
*C. J. Plence*  
C. J. Plence

CJP/s  
Encl: SG Water Report  
TG Oil Report  
Characteristic Curves

Shanghai, February 28, 1948.







RIVERSIDE STEAM ELECTRIC STATION SHANGHAI POWER COMPANY CHEMICAL LABORATORY										DATE: 194									
BOILER WATER ANALYSIS																			
NO.	ANALYST	TIME	ALKALINITY		SODIUM PHOSPHATE	MAGNESIUM	SILICA	IRON	PH	CHEMICALS ADDED LB				DOWN INCHES	REMARKS				
			TOTAL	PER 100	PER 100	PER 100	PER 100	PER 100	PER 100	COCA	TRIT	TRIT	TRIT						
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9			22	71	93	253	2.9	1015		5	10.6	4355	24	48	344" A CB				
10			18	70	88	156	1.5	445		6	10.5	3304	4	8	114" A CB				
11			17	63	73	353	4.5	1350		5	10.6	3559	26	52	374" A CB				
12			5	57	74	222	3.0	1135		6	10.5	3018	6	12	205" A CB				
13			25	80	84	244	2.8	1350		2	10.6	2772	28	56	376" A CB				
14			18	116	134	105	0.9	365		4	10.9	1552		5					
15			13	73	101	170	1.7	1060						10	68" A CB				
16			14	91	105	205	1.9	562											
17			11	85	91	70	1.4	23											
18			17	39	65	250	2.9	55											
19			16	59	78	163	2.2	109		15	11	630	12	45	55"				
20			10	51	97	203	2.6	62		21	10	655	10	28	48"				
21			19	45	63	433	5.0	160		21	10.9	1095	6	30	35"				
22			11	54	63	103	1.6	37		21	10.7	445	7	73	73"				
23			17	67	81	419	3.9	145		23	10.9	1353	7	36	26"				
24			10	61	65	94	1.2	53		26	10.7	510	9	25"					
25			15	61	76	308	4.0	155		11	11	675	15	39					
26																			
27			21	55	77	169	2.2	232		23	15	761	25	53	143"				
28			20	60	80	154	1.9	274		25	17	808	25	44	168"				
29			19	63	63	151	2.4	195		24	17	656	11	10	24"				
30			15	65	81	195	2.3	173		28	19	10.6	782	29	168"				
31			13	59	73	91	0.4	91		19	15	579	45	61	68"				
AVG										552 35 417				111 230					

ENTER IN—  
OPERATION ENGINEER  
LABORATORY ENGINEER  
MAINTENANCE ENGINEER  
GENERATION DEPT  
SEC  
IN OFFICE  
LABORATORY DEPT

# RIVERSIDE STEAM ELECTRIC STATION TURBINE OIL SERVICE DATA

JANUARY 1948

DATE February

TG No.	OPERATING HR	MAKE-UP		CENTRIFUGE OPERATION				LABORATORY REPORT			REMARKS
		GA	DESCRIPTION	HR	DRY SOLIDS 3M	SOLIDS 3M PER 1000 HR	WATER LB	VISCOSITY 100P F/SAV/ST	ACIDITY MG KOH/GR	DENSITY MIN	
10	721								.058	32	
10	722	26	DTE LT 797	116			424		.064	12	
15	798	25	DTE LT 797						84	4	
14	732	28	DTE LT 797						90	3	
13	702	5	DTE LT 797						289	8	
12	728	20	DTE LT 797						41	32	
11											
10	720								18	22	
9	720	28	Tycol LT						176	6	
8	726	26	Tycol LT						10	50	
7	831	30	DTE LT 797						41	6	
6											
5	656			835	109	170	930			4	
4	460			465	50	110	1610			2	
3											
2											
1	491	20	Tycol LT 7						12	0	

## HISTORY OF OIL BATCHES

TG No.	LAST FULL CHARGE			TOTALS TO DATE				MAKE-UP DATA			OPERATING HRS SINCE LAST OVERHAUL
	DATE	QAL	DESCRIPTION	OPERATING HRS	SOLIDS 3M/1000 HR	SOLIDS 3M/1000 HR	WATER LB	TOTAL GALLONS	QAL PER 1000 HR	TO HR PER QAL	
10	Nov 46	576	Ho Tycol LT	5683				102	18	36	5683
10	Nov 46	940	DTE LT 797	8349	494	59	1513	181	37	27	8349
15	Aug 38	946	DTE LT	66724	2158	32	9964	150	2318	34	29
14	June 37	927	Shell BBA	69791	3776	54	13330	192	2703	39	26
13	Mar 47	103	DTE LT 797	6098			4	1	65	94	6098
12	Apr 37	111	DTE LT	62554	36	1	12	630	10	100	328
11											
10	June 36	1280	Tycol LT	70802	690	10	1262	18	2089	29	34
9	May 46	590	Ho Tycol LT	14071	227	16	495	35	345	25	41
8	Sept 36	580	Tycol LT	70183	3113	44	5240	75	2267	32	31
7	July 47	339	DTE LT 797	3675				162	44	22	3675
6											
5	July 46	250	Ho Tycol LT	11625	386	33	7551	65	256	22	45
4	June 46	250	Ho Tycol LT	12864	537	42	16093	2800	156	12	83
3											
2											
1	Aug 36	296	Old Shell	8917				352	40	25	3524

C 12 - Overhaul completed this month. Oil batch drained off, centrifuged. All oil piping dismantled and cleaned. Oil tank and bearing sump cleaned. Oil cooler baffles partially removed. Tube nest boiled out in washing soda. Cooler pressure tested to 50 psi.

AP 226 (2447)

J. C. Baker

A. L. Liven

SHANGHAI POWER COMPANY

January 1948

SHANGHAI POWER COMPANY AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC. USA

DISTRIBUTION DEPARTMENT  
MONTHLY LETTER FOR JANUARY 1948

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SHANGHAI POWER COMPANY

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The following outlines the activities in connection with operation, maintenance and construction work in this Department.

I. OPERATION(A) SERVICE FAILURES AND TROUBLE CALLS(1) Major Service Failures(a) Load Reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside

Date		Jan 3	Jan 9	Jan 10	Jan 12	Jan 14
Area affected		SPC	SPC	SPC	SPC	SPC WDC
Supply from Substation		Yangchow Tonquin	Tonquin	Yangchow Tonquin	Yangchow Tonquin	Robison Tonquin
Feeder		C 5 C22, 23	CC 101	SG 101 C 5 CC103	9 feeders	HWK 1 & 2 C 7 C 8, 9
Customer		Shanghai 4 Tung Yih	Sung Siw	Shanghai 5 Shanghai 4 New China Text	9 customers & LV net-works	HWK 1 & 2 HWK 6 & 7 HWK 5
Duration of supply interruption		56 mins to 1 hr 2 mins	16 mins	5 mins to 10 mins	1 hr 13 mins to 2 hrs 28 mins	40 mins to 1 hr 41 mins
Estimated KVA-HRS Lost	Company's area	PM 4100	PM 1100	AM 693	PM 27925	PM 7160
	Chapel					
	French					
	Total	4100	1100	693	27925	7160
Insufficient electrical and/or steam generating capacity		E	E	E & S	E & S	E
Remarks		AM - refers to morning peak load period ( 8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)				

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside (continued)

Date	Jan 18	Jan 17	Jan 18	Jan 19	Jan 20	
Area affected	SPC WDPC Chapel	SPC	SPC WDPC	SPC WDPC Chapel	SPC	
Supply from Substation	Yangchow Tonquin Robinson	Tonquin	Tonquin Robinson	Riverside Yangchow Tonquin Robinson	Yangchow Tonquin Shanghai 2/3	
Feeder	16 Feeders	CCO, 19/21 CC 101	CC 103 NWK 1 & 2	9 feeders	9 feeders	
Customer	16 customers & LV networks	Boon, Chan, Wing On & NWK 3 Sun, Sing &	New China Text NWK 1 & 2	8 customers & LV networks	8 customers & LV networks	
Duration of supply interruption	26 mins to 7 hrs 26 mins	14 mins to 2 hrs 40 mins	13 mins to 1 hr 45 mins	1 hr 23 mins to 3 hrs 25 mins	10 mins to 33 mins	
Estimated MVA-IHS Lost	Company's area	AM 23,900 PM 24,000	AM 14,700	AM 2,320	AM 22,060 PM 7,760	Ev 4,970
	Chapel	AM 2,000			AM 2,920	
	French					
	Total	71,880	14,700	2,320	48,240	4,970
Insufficient electrical and/or steam generating capacity		E	S	S	E	E
Remarks		AM - Refers to morning peak load period ( 8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)				

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside (continued)

Date	Jan 23	Jan 24	Jan 25	Jan 26	Jan 27
Area affected	SFC WDPC	SFC WDPC	SFC WDPC	SFC WDPC	SFC WDPC Chapel
Supply from Substation	3 sub-stations	13 sub-stations	Riverside Yangchow Robinson	13 sub-stations	3 sub-stations
Feeder	11 feeders	29 feeders	5 feeders	21 feeders	21 feeders
Customer	10 customers & LV networks	31 customers & LV networks	6 customers & LV networks	24 customers & LV networks	21 customers & LV networks
Duration of supply interruption	23 mins to 3 hrs 12 mins	5 mins to 3 hrs 21 mins	10 mins to 3 hrs 2 mins	11 mins to 3 hrs 23 mins	5 mins to 3 hrs 36 mins
Estimated KVA-Hrs Lost	Company's area	AM 12,061 PM 22,400	AM 20,961 PM 26,862 EV 11,444	AM 26,160 PM 14,010	AM 29,105 PM 14,080 EV 13,716
	Chapel				AM 26,365 PM 44,330 EV 7,782
	French				
	Total	24,461	129,627	40,190	88,901
Insufficient electrical and/or steam generating capacity	E	E	S & E	E	E
Remarks	AM - refers to morning peak load period (6 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) EV - " " evening " " " (after 7 pm)				

SHANGHAI POWER COMPANY

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(a) Load reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside (continued)

Date	Jan 28	Jan 29	Jan 30	Jan 31
Area affected	SPC WDPC Chapel	SPC WDPC	SPC WDPC Chapel	SPC WDPC
Supply from Substation	15 sub-stations	17 sub-stations	22 sub-stations	16 sub-stations
Feeder	24 feeders	25 feeders	30 feeders	16 feeders
Customer	25 customers & LV networks	26 customers & LV networks	32 customers & LV networks	19 customers & LV networks
Duration of supply interruption	6 mins to 3 hrs 37 mins	7 mins to 3 hrs 17 mins	15 mins to 3 hrs 34 mins	8 mins to 3 hrs 18 mins
Estimated KVA-HRS Lost	Company's area	AM 64,050 PM 15,600 Ev 14,540	AM 61,000 PM 26,860 Ev 22,231	AM 55,530 PM 36,076 Ev 22,700
	Chapel	AM 1,285		AM 1,990
	French			
	Total	65,400	87,861	100,196
Insufficient electrical and/or steam generating capacity	E	E	S & E	S & E
Remarks	AM - refers to morning peak load period ( 8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)			

SHANGHAI POWER COMPANY

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(b) Other Causes

Date		Jan 8	Jan 10	Jan 13	Jan 14
Area affected		SPC	SPC	WDPC	SPC
Supply from Substation		TungYih	Chunichi Heavy Industry	Edinburgh	Chunichi Heavy Industry
Feeder		Tung Yih	- " -	M2 & M3 O/H Lines	- " -
Customer		Tung Yin	- " -	35 customers & networks	- " -
Cause of Failure		Not deter- mined	Fault on consumer's equipment	A cat entered Aux B/B Cell M3 feeder	Fault on consumer's equipment
Fault cleared by		Transformer OCB	D.C. Fuses	M2 & M3 OCBs opened by operator	D.C. Fuses
Damage to equipment		None	None	None	None
Duration of supply interruption		55 mins	23 mins	2 mins	29 mins
Load affected KVA	Company's area	20	200	6300	200
	Chapel				
	French				
	Total	20	200	6300	200
Remarks					

SHANGHAI POWER COMPANY

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(b) Other Causes (continued)

Date	Jan 15	Jan 18	
Area affected	Chapel	Chapel	
Supply from Substation	Connaught	Connaught	
Feeder	E 11	E 11	
Customer	Chapel Chang An	Chapel Chang An	
Cause of failure	Overload	Overload	
Fault cleared by	E 11 OCB	E 11 OCB	
Damage to equipment	None	None	
Duration of supply interruption	4 mins	9 mins	
Load affected KVA	Company's area		
	Chapel	4,000	3,200
	French		
	Total	4,000	3,200
Remarks			

SHANGHAI POWER COMPANY

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(2) Classified Service Failures (including Item 1)(a) Caused by Defective Equipment

Equipment	Number of Failures	
	This Month	Last Month
Overhead lines: HV	-	1
LV	3	1
Underground lines: Cables	-	1
Joints	-	1
Poleheads	1	1
Transformers and voltage regulators	-	1
Switchgear	-	1
Power fuses	-	1
Protective equipment	-	-
Traction equipment	-	-
Motoring equipment	-	-
Current and potential transformers	-	-
Street lighting: Series	-	-
Multiple	7	10
Other Company's equipment	-	2
Total (a)	11	20

(b) Other Causes

Causes of Failure	Number of Failures	
	This Month	Last Month
Foreign agencies: Overhead lines	3	3
Street lighting	1	-
Underground lines	-	-
Tram trolleys: Overhead lines	-	-
Street lighting	2	7
Traffic of equipment	-	-
Typhoons and storms	-	-
Lightning	-	-
Flood	-	-
Fire	1	-
Vandalism and birds	1	-
Overload	-	4
Customers' equipment failures:		
Company's area	3	3
Ex franchise area	2	-
Company's staff: Misoperation	-	-
Fouled by workmen	-	1
Generating station trouble	19	22
Undetermined	1	2
Total (b)	38	42
Total (a + b)	49	62

SHANTUNG POWER COMPANY

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(3) Trouble Calls attended to by System Trouble Section

	Number of Calls					
	This Month			Last Month		
	SPC	WDPC	TOTAL	SPC	WDPC	TOTAL
<u>Company's Installation</u>						
23-kV overhead and underground lines	-	-	-	-	-	-
6,600-volt overhead and underground lines	5	2	7	12	2	14
380-volt overhead and underground lines	11	8	19	4	9	13
Street lighting lines and equipment	45	9	54	62	10	72
Traffic signals	118	7	125	150	5	155
House service connections and wires	69	24	93	121	35	156
Substation equipment	-	1	1	1	-	1
D.C. Traction equipment and lifts	1	-	1	1	-	1
Fire calls	61	15	76	42	4	46
Police alarms	-	-	-	3	-	3
Miscellaneous	7	1	8	10	3	13
<u>Customers' Premises</u>						
Lighting	920	342	962	928	249	1177
Power	110	63	173	122	56	178
Heating	23	13	32	44	16	60
Total Trouble Calls attended to	1106	345	1571	1500	389	1889
Average per day	36.3	10.4	50.7	46.5	12.5	60.9

(B) TRANSFORMERS AND REGULATORS(1) Connected and/or Disconnected from Service

SPC

Location	Capacity in KVA		Remarks
	Connected	Disconnected	
MRC Central Chemical Work	225		New installation
Kotobuki Lumber OT		125	OT dismantled
Weinan	125		Temporary for relief of load
Ferry-Wuting PT	325		New installation
Janssen-Yungtszepoo PT	625		New installation
Tonquin	1000	1000	Found voltage unbalanced (B phase) on Tap No. 5



SINGAPORE POWER COMPANY

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## WDPC

Location	Capacity in KVA		Remarks
	Connected	Disconnected	
East Tao An Pang PT	225		)
East Tao An Pang "A" PT		62½	) Load increase
East Tao An Pang "B" PT		50	)
Jossfield-Kinnear PT	325	225	Load increase

## U N I T S

SPC WDPC

- (2) Taps changed for Network Voltage Regulation 5 5  
 (3) Switched on or off for loading or other operational purposes 4 -  
 (4) Under observation due to overload or overheating

## SPC

Location	Capacity KVA	Type	Max Load		Max oil temp	Ambient temp	Temp rise	Remarks
			%	Hours duration				
Robison-Gordon PT	325	Outdoor	103	1	65	9½	55½	Load transfer under study
Yates PT	225	"	103	1½	26	4	22	
Tan Tobacco Co.	225	"	126	1	62	14½	47½	Transformer to be enlarged
Bubbling Well	200	Indoor	108	1½	38	10½	27½	
" " VR	260	"	130		34	10½	23½	
Da An Rubber Fac. OT	225	Outdoor	132	1	36	10	26	In hand of E.D.
Singapore-Kinchoh PT	225	"	170	1	48½	10½	38	90A transferred to Kinchoh LV network on Jan 14. Letter to ED.
Tatung PT	225	"	109	1	34	4½	29½	
Tseepoo-Kansuh PT	225	"	111	1	45	8½	36½	
Shanghai China Merchants Stock Exchange	125	"	116	1	28½	7	21½	
Elgin PT	225	"	100	1	16	3	13	
Custom House	325	Indoor	110	1	44½	9½	35½	
Tatung PT	225	Outdoor	109	1	36	9	29½	
Tseepoo-Kansuh PT	225	"	111	1	45	10	36½	
Yangtzeptoo Dalny PT	125	"	113	1	43½	15½	32	
Chaofoong CM	325	Indoor	105	1	55	15	40	
Widow's Monument PT	225	Outdoor	111	1	35	6½	28½	
Jossfield-Yu Yuen PT	125	"	121	1	42½	15	28½	
Kung Dah No. 1	50	Indoor	132	1	44	0	44	Under study by ED.
Pingliang-Tinghai PT	125	Outdoor	158	1	34	-3	37	Under study by ED.
B'Well-Gordon PT	225	"	103	1	31	7	30.3	
Wuting PT	225	"	111	1	18½	0	18½	
Sung Sing No. 6	940	Indoor	115.3	1	52	12	40	
" " "	940	"	100	1	50½	12	38½	
" " "	940	"	100	1	51	12	39	

CHANGHAI POWER COMPANY

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WDPC

Location	Capacity KVA	Type	Max Load % Hours duration	Max oil temp	Ambi- ent temp	Temp rise	Remarks
Kiaochow-Panang PT	325	Outdoor	106 2	29	8	21	
Great Western Riding School PT	325	"	102 1	41	12	29	
Zao Ka Yih PT	225	"	106 1	30	9	21	
Chen Ka Jao "A" PT	20	"	100 1	11	4	7	
Columbia-Gt. Western PT	125	"	126 1	42	8	34	
Lee King Iron Works GT	325	"	117 1	37	12	25	
Dah Chung Hwa Flour Mill	325	Indoor	123 1	56	6	50	100% transferred to Kung Yih LV network
Zao Ka Yih PT	225	Outdoor	112 1	39	17	23	
West Tao An Pang PT	325	"	100 1	64	18	47	
St. John's PT	225	"	100 1	44	8	36	
Great Western-Lincoln Ave PT	35	"	104 1	4	-1	5	
Chung Woo PM	325	Indoor	118 1	63	12	51	
Tao Chong Hsin Blue Factory PT	625	Outdoor	138 1	37	10	27	Transformer to be enlarged

## (C) MISCELLANEOUS TESTS

Units	Equipment	Voltage	Nature of test	Reason for test
1	Current transformer compound filled 300/5A for split conductor protec- tion, make BTH	6,600	Heat run	To investigate the current rating
12	Bushing insulators, indoor type, make GHP	6,600	Overvoltage and spark over	Acceptance
10	Pin insulators and rubber insulated packing, make GHP	6,600	Overvoltage and spark over for pin insula- tors breakdown for rubber insulated packing	Acceptance
6	Bushing insulator, outdoor type, make GHP	23,000	Overvoltage and spark over	Acceptance
1	Transformer, 225kVA, 3 $\phi$ , make Ferranti	$\frac{6,300}{370}$	Continuity, insulation resistance, ratio and phasing	After routine overhaul

SPAINISH POWER COMPANY

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Units	Equipment	Voltage	Nature of test	Reason for test
1	Induction voltage regulator, 183kVA, make IGE	6,600	Continuity, insulation resistance, pressure, phasing and tolerance	After overhaul
2	Thermalarm, make Eastern Specialty Co. USA	-	Tripping temperature at 150° F setting	Acceptance
25	Cone insulator make Cheo Hsin	6,600	Overvoltage and flash over	Acceptance
1	Syn. motor-generator No.1 at Fernon S.S	380	Voltage drop on shunt field coils	New shunt field coils of Westinghouse manufacture installed
1	Syn. motor-generator No.2 at Fernon S.S	380	Voltage drop on shunt field coils	To compare voltage drop on shunt coils
1	Transformer, 225 kVA 3 Ø, make Ferranti	6,300 375	Continuity, insulation resistance, ratio and phasing	After overhaul
1	Duct splice make SFC	-	Heat run	Investigation
1	Syn. motor-generator No.2 at Yangchow Substation	380	Voltage drop on shunt field coils	To check voltage drop after receiving trouble report
1	Generating plant 2500 KVA in ST II Mill No.6-7, consumer's property	6,300	Overload, overvoltage, undervoltage & differential protection	Prior to inter-connection
8	Pyranol capacitor, make IGE, consumer's property	-	Insulation resistance, capacity and power factor	Acceptance
20	Terminal bushing, indoor type	6,600	Overvoltage and flash-over	Acceptance
1	LV terminal bushing, indoor type	380	Overvoltage and flash-over	Acceptance
1	LV terminal bushing, indoor and outdoor type	380	Overvoltage and flash-over	Acceptance

SHANTUNG POWER COMPANY

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Units	Equipment	Voltage	Nature of test	Reason for test
1	Generating plant 2500 kVA in CT II Mill No.6-7, consumer's prop- erty	6,300	Voltage ratio of trans- former bank PT's po- larity for synchrono- scope, phase rotation	Experimental pa- rallel operation
1	Syn. motor-generator No.1 at Fearon S/S	550	Copper test of shunt field coils	Prior to com- missioning
-	Consumer's installa- tion at Chunichi Heavy Industry	6,600	Overvoltage	After faulty equip- ment repairs
1	Stator coils of MG1 at Yangchow Sub- station	6,600	Overvoltage	After wedges have been renewed
5	Terminal bushing indoor type make GEP	6,600	Overvoltage and flash- over	Acceptance
-	Consumer's installa- tion at China Textile machinery	-	Overvoltage, ratio, insulation and over- load test	After repairs
1	Syn. MG No.1 at Yangchow Substation	550	Insulation resistance, continuity	Prior to com- missioning
2	Transformers banks at CT II Mill 6 consumer's property	-	Victor relationship, water and seal sam- pling	Investigation
16	Bushing insulator, outdoor type, make Lee Chi Industrial Co.	380	Overvoltage and flash- over	Acceptance
1	O/H line at Chunichi Heavy Industry	6,600	Overvoltage	After bushing insulators were renewed
1	Potential transfor- mer, make China Scientific Instru- ment Co.	13,200 110	Insulation resistance and pressure	Consumer's Engi- neer's Department request
10	Cone insulators Nos. 1 & 2, make Lee Chee Industrial Co.	No.1- 6,600 No.2- 380	Overvoltage and flash- over	Acceptance

SHANGHAI POWER COMPANY

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Units	Equipment	Voltage	Nature of test	Reason for test
-	Insi-x No.11-6, make Insi-x Co.	-	Insulation resistance, breakdown voltage, heat run	Investigation
1	Generating plant 2500 kVA in CT II Mill Nelly consumer's pro- perty	6,300	Overload, overvoltage, undervoltage and differential pro- tection	Prior to inter- connection
2	Fluorescent lamp starters make Solar & GE	-	Striking and operating voltage	Comparison
1	Transformer, 50kVA, 3 $\phi$ , make Westing- house	$\frac{6,200}{350}$	Continuity, insulation resistance, pressure, ratio and phasing	After overhaul
1	Transformer, 625 kVA, 3 $\phi$ , make AEG	$\frac{6,165}{350}$	Continuity, insulation resistance, pressure, ratio and phasing	After overhaul
1	Transformer, 10kVA, 1 $\phi$ , make ICE	$\frac{6,600}{110}$	Continuity, insulation resistance, pressure, ratio and phasing	After overhaul

SHANGHAI POWER COMPANY

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## II MAINTENANCE

Routine inspection, maintenance and testing of plant on the transmission and distribution system have proceeded according to programme.

## (A) TRANSFORMERS AND REGULATORS

- (1) Overhauled (Core lifted, windings and connections examined, IR tested and oil changed)

SPC

Location	Capacity in KVA	Workshop	Reason for overhaul
Tonquin	625	Fearon S/S	Over 10 years in service
Yu Ya Ching PT	225	"	"
Wayside-Lay PT	225	Riverside	"
Meichow-Chuoyang PT	225	"	"

WDPC

Location	Capacity in KVA	Workshop	Reason for overhaul
East Tse An Pang "H" PT	50	Fearon S/S	Transformer overloaded
Blume's PT	10	Riverside	Transformer failed in service
MacLean (E.117) PT	10	Riverside	" " "
Hani Club PT	10	Fearon S/S	Over 10 years in service

## UNITS

	SPC	WDPC
(2) Inspected on site .....	45	-
(3) Oil-Dielectric Tested .....	22	11

## (B) OIL CIRCUIT BREAKERS

- (1) Overhauled and Tripping Mechanism Tested

Reason for test	Number of OCBs tested			
	SPC		WDPC	
	Company's property	Customer's property	Company's property	Customer's property
Routine and special maintenance	27	14	15	22
Oil circuit breakers tripped	2	2	-	3
New installation or operation resumed	-	10	-	4
Total	29	26	15	29

SHAWNEE POWER COMPANY

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		U N I T S	
		SPC	WDPC
(2)	<u>Oil-Dielectric strength tested</u> .....	12	12
(3)	<u>Oil changed</u> .....	18	2

(C) OIL TREATMENT PLANT

Location	Transformer Oil				Switch Oil			
	Issued	Returned	Filtered	Stock	Issued	Returned	Filtered	Stock
	U. S. gallons							
Peabody Oil Depot	1,328	1,741	2,901 1/2	875	640	626	1,840	740
On Site- SPC	-	-	-	-	-	-	-	-
WDPC	-	-	-	-	-	-	-	-
Total	1,328	1,741	2,901 1/2	875	640	626	1,840	740

Samples for oil tested for breakdown ..... 144

(D) PROTECTION, BATTERIES AND TELEPHONES(1) Protection Tests

Type of Protection	Number of Panels where tests carried out	
	SPC	WDPC
Overload and/or Earth Leakage	29	15
Feeder or Transformer Balance	12	5
Total	41	20

(2) Relays

Type	Number of Relay Elements			
	SPC		WDPC	
	Circuit tested	Changed	Circuit tested	Changed
Inverse Time	17	-	-	1
Instantaneous	5	2	2	-
Total	22	2	2	1

SHANTHAN POWER COMPANY

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(3) Batteries

Work done	Lead-Acid & Edison Types		Ni-Fe Type	
	110 V in Primary Substations	Telephone Exchange	30-v in Secondary Substations	
	SPC		SPC	MDPC
Inspected, cleaned and topped up	19	11	69	19
Equalizing charges conducted	3	-	-	-
Charged and discharged	2	-	2	-
Electrolyte changed	-	-	1	1

(4) Auto-Telephone Equipment and Lines

Instruments installed	5
" disconnected	1
" changed	2
" moved	6
" overhauled	-
" faults repaired	24
Line faults located and repaired	1
Switches overhauled	1
Exchange equipment faults repaired	8
Miscellaneous equipment overhauled	-

(E) PRIMARY SUBSTATIONSRegular and Special Maintenance

Substation	Company	Equipment	Work done	% completed
Fearon	SPC	Rotary plant	Overhaul of three 3,600 kVA synchronous motor generators and starting gears	60
Primary Substation			Changing of oil in the machines	90
Head Office			Overhaul auto. telephone motor generator	100
Fearon			Changing of two shunt field coil on MG 1 DC generator	100
Yangchow			Overhaul of two 3,600 kVA synchronous motor generator and starting gear	100
Tonquin			Inspection of two synchronous condenser starting gears and separate exciters	100



SHANGHAI POWER COMPANY

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Regular and Special Maintenance (continued)

Substation	Company	Equipment	Work done	% completed
Robison	WDPC	Switchgear	Overhaul and overload test 23 kV oil circuit breakers	60
Fearon and Tonquin	SPC	Power transformer	Inspection of main transformer and connecting up space transformer for one week	100
Robison	WDPC		Inspection of main and earthing transformers	100
Fearon	SPC	Instrument transformer	Overhaul and cleardown of filament transformer for DC Kenotron set	100
Robison	WDPC		Inspection and cleardown of current transformers	60
Oil Depot		Oil plant	Overhaul of oil depot plant and oil pump at Fearon Substation yard	100
Primary Substation	SPC & WDPC	Various substation equipment	Checking of all portable earth wire and clamp	10
			Testing of all rubber gloves	80
			Checking of all tools	100
Primary Substation	SPC & WDPC	Batteries	Routine maintenance	To programme
Primary Substation	SPC	Safety device	Inspection of safety devices and checking on artificial respiration practice	To programme

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SHANGHAI POWER COMPANY

(F) SECONDARY SUBSTATIONSRegular and Special Maintenance

Location	Com- pany	Work done	% completed
Tsaofoo	SPC		25
Bubbling	"		85
Range	"		75
Park (old)	"	<u>Biannual Regular Maintenance</u>	100
Wing On 3	"		100
Ynton Coal Briquette	"	Overhaul of switchgear, testing	100
Shong Te Weaving	"	of automatic protective equip-	100
Suy Woo	"	ment, inspection of transformers	100
Wong Fok Nails	"	and regulators, inspection of	100
Dah Wu Brass	"	all electrical equipment and	100
Central Printing No.2	"	cleaning.	100
Mei Kwang D.F.W.	"		100
Tsung Tsoong	"		100
Nee Sung R	"		100
Shanhaiwen	"		20
NWK 3 & 4	"		50
Chunichi Heavy Industry	"		100
Kaohing	"		50
Edinburgh	ADPC		100
Tuck Fung CM	"		100
Yung Poong CM	"		100
Japan-China	"		100
All districts		Inspection of fire extinguishers	40
All districts		Inspection of unoccupied lanes and vacant programs	20
All districts		Inspection of all wooden poles in Depot yards	60
Eastern District		Overhaul of four power transformers at Foonen Substation	100
Western District		Completely clean-down and whitewash Robison, Kung Yih, Hrenan and Edinburgh Substations	20
All districts		Inspection of pole transformers	To program
All districts		Inspection of safety devices and check on artificial respiration practice	To program

STANDARD FORM 64

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## (C) OVERHEAD LINES AND STREET LIGHTING

## (1) Inspection and Overhaul of Overhead Lines (All Districts)

System Voltage	Locations where maintenance of overhead lines has been carried out to programme
6.6 kV	Line to Kinnear-Edinburgh PT M2, M3 and C3 overhead line

## (2) Repairs and Replacements of Overhead Line Equipment (All Districts)

Equipment	Inspected	Repaired	Renewed
Stays	111		2
Brackets	692		-
Line switches	15		-
Lightning arresters	6		-
Insulators	1735		37
Fuses	76		-
Series transformers	-		-
Lamp fittings	-		-
Lamp brackets	-		-
Connections	-		-

## (3) Poles and Pole Bases - Routine and Special Maintenance

	SPC	WDPC
Poles inspected .....	167	419
Wood poles painted .....	2	-
Iron poles painted .....	-	-
Concrete poles repaired .....	-	-
Decayed wood poles renewed: Main .....	2	3
Suspension .....	3	-
Stay .....	4	-
Concrete bases inspected .....	139	409
Concrete bases repaired .....	-	-
Concrete bases renewed .....	11	5
Cast iron sleeves renewed .....	6	-
Cast iron sleeves replaced by concrete bases .....	-	-
Obsolete concrete sleeves replaced by concrete bases ..	-	-

## (4) Street Lamps Faulty and renewed

	SPC	WDPC
Municipal street lighting .....	1736	253
Private street lighting .....	845	142
Total .....	2581	395

## (5) Traffic Signal Switches

Location	Installed	Removed	Replaced	Overhauled
Eastern District	-	-	-	1
Central District	-	-	3	52
Western District	-	-	2	4

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SHANGHAI POWER COMPANY

(H) UNDERGROUND LINES

	<u>% completed</u>	
	<u>SPC</u>	<u>WDPC</u>
(1) <u>Inspection and Maintenance</u>		
Idle cable risers .....	100	100
Road condition along cables in Eastern District .....	100	-
Central District duct line and manholes .....	100	-
Underground cables on bridge crossings .....	100	-

U N I T S

	<u>SPC</u>	<u>WDPC</u>
Cable potholes and joints: 23 kV .....	-	2
0.6 kV .....	73	-
380 V .....	-	-
Feeder pillars .....	2	-

Location

	<u>SPC</u>	<u>WDPC</u>
Underground cables slung and protected: 1. Canton Rd-The Bund		-
2. S Soochow Rd-Chapoo Rd Bridge		
3. Soochow Rd-Peking Rd, along the Bund		
4. Chapoo Rd, corner Haining Rd		

- (2) 23 kV Underground Cable Failure Located and Repaired ..... Nil
- (3) 0.6 kV Underground Cable Failure Located and Repaired ..... 2

SPC

Feeder name	Type of failure	Location of failure	Faulty cores	Cause of failure	Repairs
B 25 Fearon-Shance	Service	Joint 5 (Woonung Road corner of Fuh Teh Road)	5	Ground Subsidence	Length of 23 ft replaced by new cable and two new joints
B 24 Fearon-Peking	Incipient	Joint 5 (Woonung Road corner of Fuh Teh Road)	R.W.B	Ground Subsidence	Remade in same position

WDPC

Nil

- (4) 380 V Underground Cable Failure Located and Repaired ..... Nil
- (5) Pilot, PL and Telephone Cable Failure Located and Repaired ..... 1

SHANGHAI POWER COMPANY

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## SPC

Feeder name	Type of failure	Location of failure	Faulty cores	Cause of failure	Repairs
4 pair Telephone Hamilton House-Shanghai Club	Service	Cable (93 feet from Shanghai Club Substation in alleyway)	All pairs	Ground Subsidence	Length of 60 ft and one joint replaced by new cable and two new joints

## WDPC

Nil

- (6) 23 kV Underground Cable Preventive Repairs ..... Nil
- (7) 6.6 kV Underground Cable Preventive Repairs ..... Nil
- (8) 380 V Underground Cable Preventive Repairs ..... Nil

(I) BUILDINGS

	<u>Location</u>	<u>Work done</u>	<u>% completed</u>	
			<u>Last Month</u>	<u>This Month</u>
SPC	1. Fearon Underground Workshop	Build cupboards for workmen's mess room	30	85
	2. Fearon Construction Substation Workshop	Alterations to building	40	50
	3. Yangchow Depot	Repair roof	70	70
	4. DD Office	Alterations to monthly staff inventory	-	60
	5. Fearon Substation	Repairing brick column of Transformer Bank No. 3 chamber	-	100

## WDPC

Nil

III CONSTRUCTION(A) SERVICES

	<u>SPC</u>	<u>WDPC</u>
(1) <u>House Services</u>		
Connections .....	345	211
Disconnections .....	87	23
Net increase .....	258	188
(2) <u>Municipal Street Lighting</u>		
Connections .....	16	-
Disconnections .....	-	-
Net increase .....	16	-

SHANGHAI POWER COMPANY

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(3) Private Lighting		SPC	WDPC
Connections	.....	44	3
Disconnections	.....	62	3
Net increase	.....	-18	-

## (3) OVERHEAD LINES

(1)	<u>Erection</u>	<u>Area</u>	<u>Location</u>	<u>Route length</u> <u>yards</u>	<u>Number of</u> <u>poles</u>
	6.6 kV				
	3-wire	SPC	NRG Central Chemical Works	27	1
	"	WDPC	48 Kong Ka Jao	90	-
	"	"	139 & 141 Chunshan Road	310	-
	"	"	Five Star St. Western Road	29	-
	"	"	Lincoln Av. & Warren Road	23	-
	380 V				
	4-wire	SPC	1504 Yangtzepoo Road	87	-
	"	"	Dalhi Substation Area	277	-
	"	"	Sing Hun Brass Mill	54	-
(2)	<u>Salvage</u>				
	6.6 kV				
	3-wire	SPC	Kotobuki Lumber Co.	34	-
	"	WDPC	Five Star St. Western Road	94	-
	"	"	East Tse An Pang PT	32	-
	380 V				
	4-wire	"	Rubicon Road N of Hungjao Rd	433	-
(3)	<u>Poles</u>			<u>SPC</u>	<u>WDPC</u>
	Erected			2	33
	Removed			8	28
	Moved at the request and expense of the Municipality			2	-

## (C) UNDERGROUND LINES

(1) Installation			
Cable -	SPC	53 yds, .057 sq in, 3-core, 6.6 kV cable for supply to NRG Central Chemical Works, Yangtzepoo Road	
	WDPC	11 yds, .057 sq in, 3-core, 6.6 kV cable for supply to East Tse An Pang PT, off Edinburgh Road	
Joints and potheads -	SPC	One 6.6 kV pole pothead and one 6.6 kV transformer pothead for supply to NRG Central Chemical Works, Yangtzepoo Road	
	WDPC	One 6.6 kV pole pothead and one 6.6 kV transformer pothead for supply to East Tse An Pang PT, off Edinburgh Road	
(2) Salvage			
Cable -	SPC	17 yds, .075 sq in, 3-core, 6.6 kV cable salvaged from Kotobuki Lumber, Yangtzepoo Road	
	WDPC	Mill	

SHANGHAI POWER COMPANY

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Joints and potheads - SPC One 6.6 kV pole pothead and one 6.6 kV transformer pothead salvaged from Kotobuki Lumber, Yangtzepoo Road

WDPC Nil

(3) Deviation Nil(D) SUBSTATIONS

	<u>Substation</u>	<u>Work done</u>	<u>% completed</u>	
			<u>Last Month</u>	<u>This Month</u>
SPC	1. Sing Yue No.1, West Soochow Road	Installation of 6.6 kV bus couple gang operated links	45	70
	2. Standard Shirts Factory, Tongshan Road	Installation of 6.6 kV supply	30	20
	3. Dah Kong Mill, Tengyueh Road	Change A1 & A2 OCBs from 300A to 600A rating	25	50
	4. Chase Bank, Szechuen Road	Removal of 1-225 kVA transformer	-	50
	5. Tonquin	Replacement of 1000 kVA Local Transformer due to faulty tap changer	-	75
	6. Wha Fong Worsted, Linching Road	Installation of LV network feeder	-	10
WDPC	1. Union Syndicate, off Connaught Road	Conversion to 6.6 kV supply	30	50
	2. Kwang Sing P & D, Koswick Road	Conversion to 6.6 kV supply	45	75
	3. Chung Woo Kk, Tamsin Road	Conversion to 6.6 kV supply	-	30

(E) BULK SUPPLY METERING

<u>Work Done</u>	<u>SPC</u>	<u>WDPC</u>	<u>Total</u>
Metering equipment installed	5	2	7
" " removed	1	-	1
" " changed	1	2	3

SHANGHAI POWER COMPANY

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(F) VARIOUS WORK

	<u>Nature of Work</u>	<u>Location</u>	<u>% completed</u>	
			<u>Last Month</u>	<u>This Month</u>
SPC	1. Redrugging of cables from rotten to good reels and repair to cable drums	Fearon Depot	75	100
	2. Prepare material for Underground Emergency Store	Fearon Underground Workshop	-	-
	3. Making 23 kV "H" type .4 sq in duct joint sample	Fearon Underground Workshop	50	80
	4. Wiring for lighting and power lines in Engineering Model Workshop	Ferry Substation	90	100
	5. Installation of joints and potholes for smoke signal device	Riverside Generating Station	-	100
	6. Reconnect PL for Bureau of Public Works	Pontoon 11	-	100
	7. Laying new drain pipe and cleaning the pond	17 Lucerne Road	-	100
	8. Repairing FD-1 PL cable pothead	Garden Bridge, The Bund	-	100
	9. Manufacture of reinforcing clamps for 4'-0" copper sleeve	Fearon Substation Workshop	-	75
	10. Modification to MG 1 starting panel	Yangchow Substation	-	100
	11. Manufacture of PL regulator plug for Fearon Substation	Fearon Substation Workshop	-	100
	12. Manufacture of spare motor vehicle engine stand	Fearon Garage Workshop	-	100
	13. Repair main driving pulley on machine shaft	Fearon Substation Workshop	-	100
WDPC	Nil			

IV WORK DONE FOR CONSUMERS

	<u>Location</u>	<u>Work done</u>	<u>% completed</u>
SPC	1. Shanghai Waterworks, Kinohow Road	Re-route ex-compressor cable, and supply labour and material for Consumer's 40 KVA Residence PT	100
WDPC	Nil		



SHANGHAI POWER COMPANY

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V STAFF(A) CHANGESEngineering and Office StaffSPC

Tang P. Y. (Miss)

Stenographer

Engaged

WDPC

None

Monthly Rate StaffSPC

Cheng Yun Sheng

Typist (Temporary)

Service terminated

WDPC

None

Daily Rate StaffSPC

RX 2

Labourer

Engaged

EOX 22

"

"

COX 5

"

"

OSX 3

"

"

CUQ 16

Improver

"

EOL 10

Lineman

Deceased

CXX 5

Labourer

Resigned

LXX 4

"

Deceased

CUXL 6

" (Temporary)

Service terminated

CSFL 5

Fitter ( " )

"

CSFL 6

" ( " )

"

CSFL 7

" ( " )

"

WDPC

None

(b) ACCIDENTS

Date	Employee injured	Location of accident	Description of accident	Fatal or permanent injured	Disabled for the period of
Jan 14	WOL 5	Kiaochow Road South of Connaught Road, fronting House No. 419 Kiaochow Road	WOL 5 fell to the ground and suffered injuries when our vehicle was hit near the tail-end by an outsider truck backing out from an alleyway	No	1 week
Jan 15	WOL 16	In front of House 141, Chun Shan Road	A ladder was suddenly blown away from a pole by high wind and fell on the head of WOL 16	No	2 days

VI MISCELLANEOUS(A) Theft of Materials

Nil

(In SPC and WDPC Areas)

SHANGHAI POWER COMPANY

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## VII TRANSPORT

The following outlines the activities of the Transport Division during the month.

## (A) MOTOR VEHICLES

## (1) Summary

Vehicles	Passenger cars	Pick-ups	Station wagons	Vans	Trucks	Special vehicles*	Trailers
In Operation	55	9	2	5	15	3	4
In Storage	-	** 1	-	-	-	-	4

\* Oil tanker and 20-ton lorries

\*\* Under conversion to Station Wagon

## (2) Operating Data on Motor Vehicles

Type	No. in service		GASOLINE							
			Issue (gallons)		Usage (gallons)		Mileage run		Average mpg	
	Jan	Dec	Jan	Dec	Jan	Dec	Jan	Dec	Jan	Dec
Passenger cars	55	55	5,322	6,499	6,322	6,489	72,660	75,945	12.0	11.7
Station wagons	2	2	166	171	166	171	1,711	1,974	10.3	11.5
Pick-ups	9	10	868	1,029	868	1,029	11,103	12,723	12.8	12.4
Trucks (1-ton)	2	2	247	233	247	233	2,143	2,222	8.7	9.5
Trucks (3-ton)	9	9	1,199	1,296	1,199	1,296	8,478	8,896	7.1	6.8
Lorries (6-ton)	2	2	282	299	282	299	1,227	1,251	4.3	4.2
Lorries (20-ton)	2	2	36	109	31	109	41	149	1.3	1.4
Oil tanker truck	1	1	-	3	-	2	-	2	-	1.0
Motor vans	2	2	164	141	164	141	1,296	1,032	7.8	7.7
Trouble Section van	1	1	159	221	159	221	990	1,137	6.2	5.1
Cooker vans	2	2	405	365	405	365	3,429	3,301	8.5	9.0
Bus	2	2	626	567	626	567	4,065	3,719	6.5	6.5
Trailers	8	8	-	-	-	-	-	-	-	-
Total	97	98	10,474	10,933	10,469	10,922	110,133	112,391	10.5	10.3

STANLEY POWER COMPANY

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## (3) Maintenance Works on Motor Vehicles

Type	General Overhaul completed		Emergency Overhaul completed		Minor adjustments and repairs		Repairs after			
							Accident		Breakdown	
	Jan	Dec	Jan	Dec	Jan	Dec	Jan	Dec	Jan	Dec
Passenger cars	1	1	3	3	106	95	1	10	10	11
Station wagons	-	-	-	-	5	4	-	-	-	-
Pick-ups	-	-	-	-	28	26	1	1	2	3
Trucks (1½-ton)	-	-	-	1	8	10	-	-	1	3
Trucks (3-ton)	-	-	-	1	16	24	-	3	1	6
Lorries (6-ton)	-	-	-	-	5	5	-	-	-	1
Lorries (20-ton)	-	-	-	-	-	1	-	-	-	-
Oil tanker	-	-	-	-	-	-	-	-	-	-
Motor vans	-	-	-	-	12	7	-	-	-	-
Trouble Section van	-	-	-	-	2	1	-	-	-	-
Cooker van	-	-	-	-	-	-	-	-	-	-
Bus	-	-	-	1	6	4	1	2	1	2
Trailers	-	-	-	-	-	1	-	-	-	-
Total	1	1	3	6	198	178	3	15	15	26

## (4) Motor Vehicle Engine Lubricating Oil

Description	Issue (US gallons)		Fenton stock at the end of this month: 1,771 US gallons of SAE 30
	Jan	Dec	
Cars	144	142	
Trucks	180	179	
Other purposes	15	18	
Total	339	339	

## (5) Motor Vehicle Breakdowns

Classification	Cases	%
Electrical equipment	9	50.0
Engine	-	-
Chassis	1	5.5
Fuel system	5	27.8
Tire and tubes	3	16.7
Total	18	100.0

Frequency: 6,118 miles per breakdown.

SIN HONG POWER COMPANY

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(B) MAJOR HAULAGE JOBS  
(1) TRANSFORMERS, MOTORS, AND POLES

Units	Equipment			Moved		Size of truck	Man-days
	Capacity KVA/HI	Weight lbs	Description	From	To		
1	625	16,800	Transformer	Tonquin Substation	Ferry Substation	20, 6	22
8		4,480	O.P. Pole	Woodcraft Works	Haiphong Stores	3 1/2	8
2		19,056	Concrete Structure	Riverside Stores	Haiphong Stores	6	14
1	225	5,417	Transformer	Fearon Substation	MRC Chemical CT	20	10
10		9,000	Concrete Base	Riverside Stores	Haiphong Stores	6	8
10		9,000	"	"	"	6	8
3		7,200	"	"	"	6	8
1	625	13,000	Transformer	Fearon Stores	Fearon Substation	20	25
1	100	15,000	"	Fearon Substation	Ferry Substation		
1		6,500	Concrete Base	Riverside Stores	Haiphong Stores	6	8
1	225	3,520	Transformer	Fearon Substation	East Tse An Pang PT		
1	625	2,500	"	East Tse An Pang PT	Fearon Substation	6	10
1	50	2,000	"	"	Hungjao Road		
16		20,000	Concrete Base	Riverside Stores	Hungjao Road	6, 6	16
16		20,000	"	"	Hungjao Road	6, 6	16
1	125	3,330	Transformer	Kotobuki Lumber OT	Fearon Stores	6	7
1	80	2,240	Motor	Fearon Stores	Ta Yu Yue Oil Mill	6	7
1	80	2,240	"	Ta Yu Yue Oil Mill	Consumers' Engr. Dept. Workshop	6	6
2	225	7,940	Transformer	Riverside Workshop	Fearon Stores	6	10
1	125	5,310	"	Fearon Stores	Weinan Substation	3 1/2	7
8		10,400	Concrete Base	Riverside Workshop	Hungjao Road	6	8
1	200	4,490	Motor	Shanghai Waterworks Yangtzepoo W/ahop	Shanghai Waterworks Sinza Pump Station	6	20
1	225	5,350	Transformer	Riverside Workshop	Fearon Stores		
2		4,000	O.P. Pole	Woodcraft Works	Riverside Stores	7	16
1	325	4,465	Transformer	Fearon Stores	Jessfield-Kinnear PT		
1	225	5,180	"	Jessfield-Kinnear PT	Riverside Workshop	20	8
1	225	5,350	"	Riverside Workshop	Nanyang Rubber OT	20	20
1	1,000	16,800	"	Tonquin Substation	Fearon Stores	20	40
1	625	16,800	"	Fearon Substation	Delhi Substation	20	30
4		8,000	O.P. Pole	Woodcraft Works	Riverside Stores	6	16
	TOTAL:	254,168					348

STANBORN POWER COMPANY

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(2) SUMMARY

Item	Type of Freight	Weight lbs	Number of Trips	Man- days	Mileage Run
1	Transformers, Motors, and Poles	254,168	51	348	454
2	Miscellaneous Material	279,000	68	284	1,761
3	Coal Briquettes	400,000	51	Contr- actor	1,336
Total		1,333,168	190	632	3,751

$$\begin{aligned} \text{Total in Ton Miles: } & \frac{\text{Total Weight lbs}}{2000 \text{ lbs} \times \text{Total Trips}} \times \frac{\text{Total Miles}}{2} \\ & = \frac{1,333,168}{2000 \times 190} \times \frac{3,751}{2} = 6,600 \text{ Ton Miles} \end{aligned}$$

SHANGHAI POWER COMPANY

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(C) BICYCLES(1) Taxi Bicycle and Tricycle Service

Department	Type	No. in service	Issue for temp use	Issued as taxi	Remarks
Transport Division	Bicycles	54	20	12	-
	Tricycles	7	7	-	-
Motor Department	Bicycles	24	-	-	-
	Tricycles	-	-	-	-

(2) Bicycle and Tricycle Maintenance

Type	No. in service	General overhaul		Minor adjustments and repairs		Routine inspection		Repairs after accident	
		Jan	Dec	Jan	Dec	Jan	Dec	Jan	Dec
Company's bicycles	243	1	2	68	74	20	18	-	-
Employee's bicycles	25	-	-	7	5	5	4	-	-
Tricycles	10	-	-	3	2	-	-	-	-
Pedicabs	-	-	-	-	3	-	-	-	-
Trailers	2	-	-	-	-	-	-	-	-
Total	280	1	2	78	84	25	22	-	-

\* Three pedicabs sold on January 7th.

(D) HANDCARTS

Type	No. in Service	No. in Storage	No. in Construction	Number in repair	
				Maintenance	After Accident
Large 2-ton	1	2	-	-	-
Standard 1-ton	9	13	-	-	-
House Service	3	1	-	-	-
Balancing	3	1	-	-	-
Total	16	17	-	-	-

SHANGHAI POWER COMPANY

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## (E) TRANSPORT WORKSHOP

Shop	WORK DONE	For other divisions - 17.2%	
		Manhours	% of total
Vulcanizing	Repaired for - Motor vehicles: 11 tires; 131 tubes Bicycles: 14 tires; 18 tubes	223	19.2
Tailor	Repairs to: 44 seat covers Manufacture of: 4 seat covers 56 upholstery 1 upholstery 32 uniforms	18	1.4
Paint	Repainted: 1 motor car; 1 bicycle Touched up: 140 motor car jobs; 80 bicycle jobs	316	26.8
Welding	Repaired by welding - 31 motor vehicle bodies 21 engine parts 22 chassis parts	301	16.9
Battery	Replated: 6 batteries Repaired: 25 " Charged: 204 "	-	-
Blacksmith	Forged: 40 new parts Repaired: 141 damaged parts	20	1.7
Whitesmith	Repaired - 33 vehicle radiators 25 bumpers 22 bodies 35 doors 23 windows 5 various small parts	3	0.2

SHANGHAI POWER COMPANY

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Shop	WORK DONE		
	Transport Division	Other divisions	
		Manhours	% of total
Electrical	Repaired or overhauled - 15 starters 13 dynamos 61 horns	-	-
Carpenter	Repairs to 31 vehicle bodies	Repairs to 7 chairs 2 revolving chairs 6 desks 8 extension ladders	
		Minor repairs: 37.5	31.5
Machine	Repairs to 79 engine parts 238 other parts  Manufacture of 81 engine parts 257 other parts	27	2.3
Lubrication Centre	Motor vehicles: Oil changed: 66 General inspection: 66 General lubrication: 66	-	-



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SHANGHAI POWER COMPANY

## (F) ACCIDENTS

## (1) Motor Vehicles

Date	Vehicle		Location of accident	Description of accident	Damage to SFC vehicle			SPC driver to blame?	Persons injured	
	Type	No.			Major	Minor	None		Staff	Out-siders
Jan 3	Pass car	17520	Yangtzepoo	Knocked down pedestrian	-	x	-	No	No	Yes
Jan 9	Light van	30131	Fouron Road	Knocked down pedestrian	-	-	x	No	No	Yes
Jan 13	Pass car	10657	Burkill W Rd	Collided with car	-	-	x	Yes	No	No
Jan 13	Light truck	30044	Kiaochow Rd	Collided with truck	-	-	x	No	Yes	No
Jan 16	Pick-up	30049	Marshall Rd	Collided with handcart	-	x	-	No	No	No
Jan 19	Pass car	34127	Earn Road	Struck by car	-	x	-	No	No	No
Jan 20	Pass car	10659	N Szechuen Road	Pedestrian struck by car	-	-	x	No	No	Yes
Jan 21	Pass car	17520	Bubbling Well Road	Collided with pedicab	-	-	x	No	No	No
Jan 22	Pass car	32464	Ave Joffre	Collided with car	-	x	-	No	No	No
Jan 26	bus	32682	Bubbling Well Road	Struck by pedicab	-	x	-	No	No	No

Frequency: 11,013 miles per accident.

## (2) Bicycles and Tricycles

None

## (3) Details of Accidents Involving General Public

Date	Location of accident	Damage to SFC vehicle			Injury to outsiders			Remarks
		Major	Minor	None	Major	Minor	None	
Jan 3	Yangtzepoo	-	-	-	x	-	-	Fatal
Jan 9	Fouron Road	-	-	-	-	x	-	
Jan 13	Burkill W Road	-	x	-	-	-	x	
Jan 13	Kiaochow Road	-	-	x	-	-	-	
Jan 16	Marshall Road	-	-	x	-	-	x	
Jan 19	Earn Road	-	-	x	-	-	x	
Jan 20	N Szechuen Road	-	-	-	-	x	-	
Jan 21	Bubbling Well Rd	-	x	-	-	-	x	
Jan 22	Avenue Joffre	-	-	x	-	-	x	
Jan 26	Bubbling Well Rd	-	-	x	-	-	x	

## (4) Staff

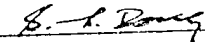
None

SHANGHAI POWER COMPANY

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(C) STAFF

- (1) Supervisory Staff  
No change
- (2) Clerical Staff  
No change
- (3) Monthly Rate Staff  
No change
- (4) Daily Rate Labour  
No change



S. L. Dong  
Distribution Engineer

SHANGHAI POWER COMPANY

Shanghai, February 4th, 1948.

The General Manager:

MECH. AND TESTING DEPARTMENT  
LARCENY OF ELECTRICITY  
MONTHLY REPORT FOR JANUARY, 1948.

Accounts Office Queries :

One case of larceny was detected, and revenue amounting to CN.\$29,400,000 has been recovered.

One case of damaged meter was found. The cost of repairs, etc., amounting to CN.\$385,000 has been paid by the consumer.

Meter Readers' Reports :

One case of larceny was detected, and revenue amounting to CN.\$6,316,000 has been recovered.

Six cases of damaged meters were found when following up these reports. The cost of repairs, etc. amounting to CN.\$1,395,000 has been paid by the consumers.

Route Meter Investigation :

One case of larceny was detected, and revenue amounting to CN.\$16,300,000 has been recovered.

Three cases of damaged meters were found. The cost of repairs, etc., amounting to CN.\$1,408,000 has been paid by the consumers.

Power Meter Investigation :

Three cases of larceny were detected, and revenue amounting to CN.\$65,560,000 has been recovered.

Two cases of damaged meters were found. The cost of repairs, etc. amounting to CN.\$2,828,000 has been paid by the consumers.

Small Area Investigation :

One case of damaged meter was found. The cost of repairs, etc., amounting to CN.\$786,000 has been paid by the consumer.

Miscellaneous :

Seventeen cases of damaged meters were reported by Installation Section's staff. The cost of repairs, etc., amounting to CN.\$7,427,000 has been paid by the consumers.

Damaged or Missing Main Fuse Box Lead Seals :

Forty cases of above infringement of Company's Regulations have been handled by the Installation Section. Fees paid by consumers total CN.\$3,400,000.

SHANGHAI POWER COMPANY

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S u m m a r y :

Six cases of larceny have been detected and settled during the month together with thirty cases of damaged meters and/or associated equipment.

Revenue amounting to CN. \$139,205,000 has been recovered, of which:-

- a. CN. \$117,576,000 represent recovered revenue.
- b. CN. \$ 19,229,000 represent an estimated cost of repairs to damaged meters and associated equipment.
- c. CN. \$ 2,400,000 represent fees paid for damaged or missing main fuse box lead seals.

Estimated Unmetered Consumption :

Forty cases of unmetered consumption due to defective or damaged meters were dealt with on Consumers' Accounts Inspect Orders during the month and revenue amounting to CN. \$18,492,000 was recovered.

NOTE:- Nine cases of unmetered supply taken by various units of the Chinese Armed Forces have been reported by the Installation and Investigation Sections' staff and Meter Readers during the month. These have been passed to the Installation Section for action in concert with Consumers' Engineer's Department.

*R. Bennett*  
For R. Jacobs,  
Meter & Testing Engineer

AVG: zkc

SHANGHAI POWER COMPANY

JANUARY, 1948

ANALYSIS OF CASH RECOVERED FOR ESTIMATED LOSS OF REVENUE  
FROM CONSUMERS INVOLVED IN LARCENY OF ELECTRICITY AND FOR  
DAMAGED OR MISSING METERS AND BROKEN MAIN FUSE COILS.

S.P.C. &amp; W.D.P.C.

NATURE OF INVESTIGATION	Meters Ct\$	Tempered Meters Ct\$	Increased Meters Ct\$	Missing Meters Ct\$	Part Payment Ct\$	Broken Main Fuse Coils Ct\$	TOTAL Ct\$
Accounts Office Queries	29,400,000	--	355,000	--	--	--	29,755,000
Water Readers' Reports	6,316,000	--	4,395,000	--	--	--	10,711,000
Route Meter Investigation	16,300,000	--	1,408,000	--	--	--	17,708,000
Power Meter Investigation	69,560,000	--	2,828,000	--	--	--	68,388,000
Small Area Investigation	--	--	785,000	--	--	--	785,000
Miscellaneous	--	--	9,427,000	--	--	2,400,000	11,827,000
<b>Total</b>	<b>117,576,000</b>	<b>--</b>	<b>19,425,000</b>	<b>--</b>	<b>--</b>	<b>2,400,000</b>	<b>139,235,000</b>

W.D.P.C. (Included in above figures):

Accounts Office Queries	--	--	--	--	--	--	--
Water Readers' Reports	--	--	565,000	--	--	--	565,000
Route Meter Investigation	16,300,000	--	715,000	--	--	--	17,015,000
Miscellaneous	--	--	6,164,000	--	--	960,000	7,124,000
<b>Total</b>	<b>16,300,000</b>	<b>--</b>	<b>7,464,000</b>	<b>--</b>	<b>--</b>	<b>960,000</b>	<b>24,724,000</b>

	S.P.C. & W.D.P.C.	W.D.P.C. (only)
Month ending January 31st, 1948	Ct. \$39,235,000.-	Ct. \$ 24,724,000.-
12 Months ending January 31st, 1948	Ct. \$372,456,040.-	Ct. \$114,030,900.-

SHANGHAI POWER COMPANY

JANUARY, 1948

S.P.C. + M.D.F.C.

NATURE OF INVESTIGATION	PREMISES INSPECTED	METERS INSPECTED	IRREGULAR- TILTS FOUND	LARCENY CASES			TOTAL CASES
				Jumpers	Tempered Meters	Deranged and/or Missing Plant	
Accounts Office Queries	1017	1069	238	1	-	1	2
Meter Readers' Reports	9	9	7	1	-	6	7
Route Meter Investigation	1348	1944	480	1	-	3	4
Power Meter Investigation	95	191	46	3	-	2	5
Small Area Investigation	365	453	95	-	-	1	1
Casual Visits - Day	70	112	22	-	-	-	-
Informers' Letters	3	3	2	-	-	-	-
Miscellaneous	17	17	17	-	-	17	17
<b>Total</b>	<b>2344</b>	<b>3798</b>	<b>957</b>	<b>6</b>	<b>-</b>	<b>30</b>	<b>36</b>

M.D.F.C. (Included in above figures, :

Accounts Office Queries	183	204	55	-	-	-	-
Meter Readers' Reports	2	2	1	-	-	-	-
Route Meter Investigation	423	371	140	1	-	1	2
Small Area Investigation	12	164	20	-	-	-	-
Casual Visits - Day	2	3	1	-	-	-	-
Informers' Letters	1	2	1	-	-	-	-
Miscellaneous	6	6	6	-	-	6	6
<b>Total</b>	<b>747</b>	<b>952</b>	<b>216</b>	<b>1</b>	<b>-</b>	<b>8</b>	<b>9</b>

	S.P.C. + M.D.F.C.			M.D.F.C. (only)		
	Premises	Meters	Irregularities	Premises	Meters	Irregularities
Month ending Jan. 31st. 1948	2,944	3,798	957	36	747	216
12 Months ending Jan. 31st. 1948	42,747	59,793	17,258	423	10,776	4,108
					14,999	100